Appendix A

Traffic Survey Volumes

Epping - Traffic Flows

MATRIX

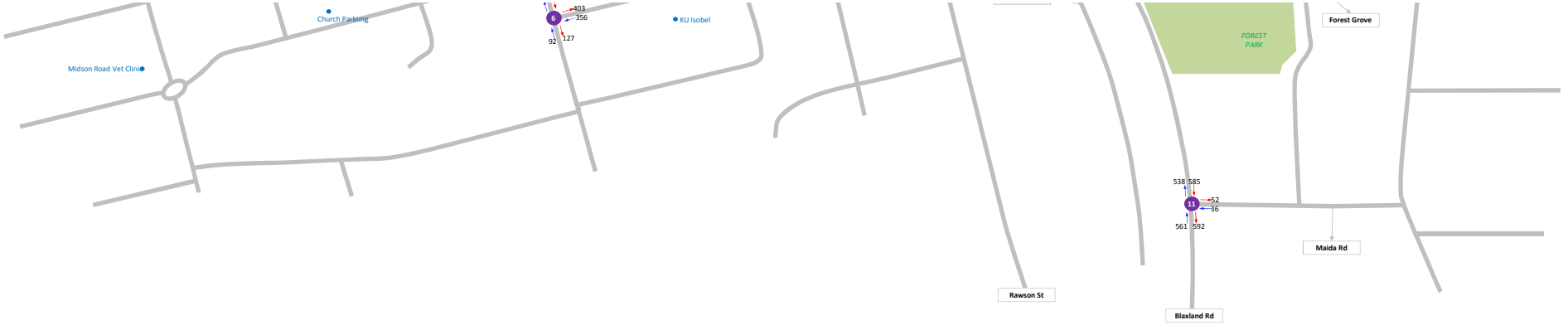
Search By Time and Classfication

Day	Start Time	End Time	Classification
14hrs_Thu	8:00	9:00	All vehicles

Volume Forecasting

0 % * 0 = original survey data

(e.g. input 20 for volume increase 20% or -20 for volume decrease 20%)


Church Parking
Midson Road Vet Clinic
KU Isobel
6
403
356
92
127
FOREST PARK
Forest Grove
538
585
11
52
36
561
592
Maida Rd
Rawson St
Blaxland Rd

Epping - Traffic Flows

MATRIX

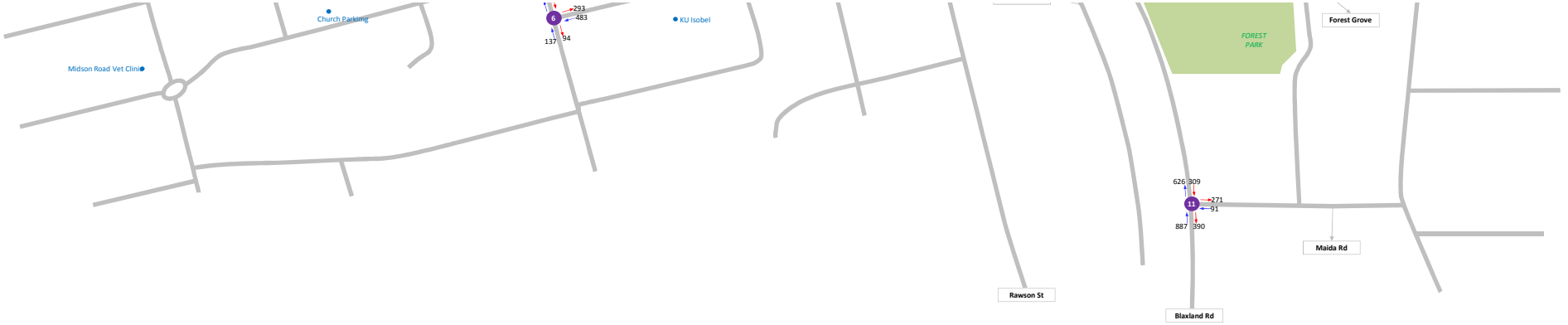
Search By Time and Classfication

Day	Start Time	End Time	Classification
14hrs_Thu	17:00	18:00	All vehicles

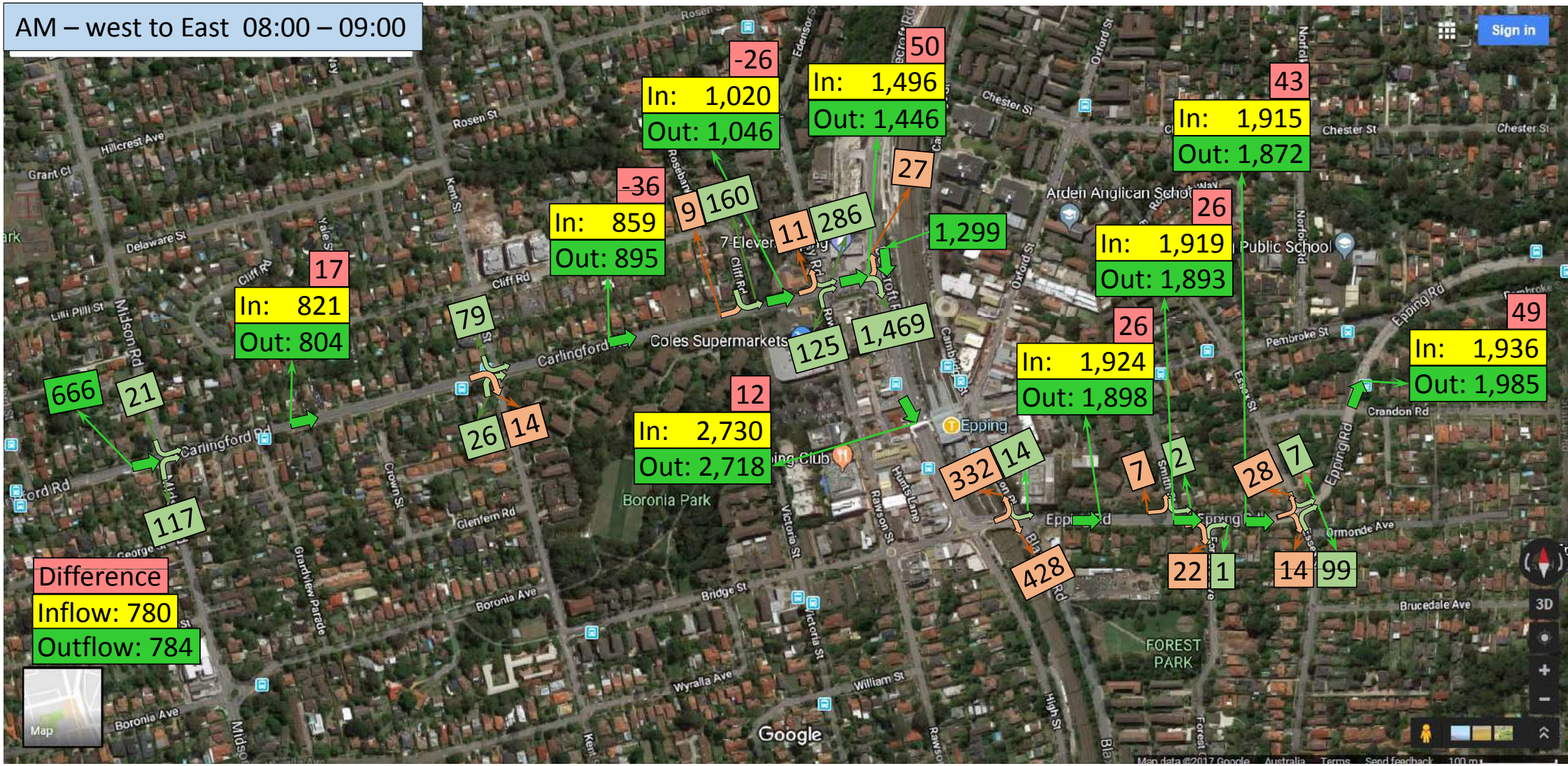
Volume Forecasting

0 % * 0 = original survey data

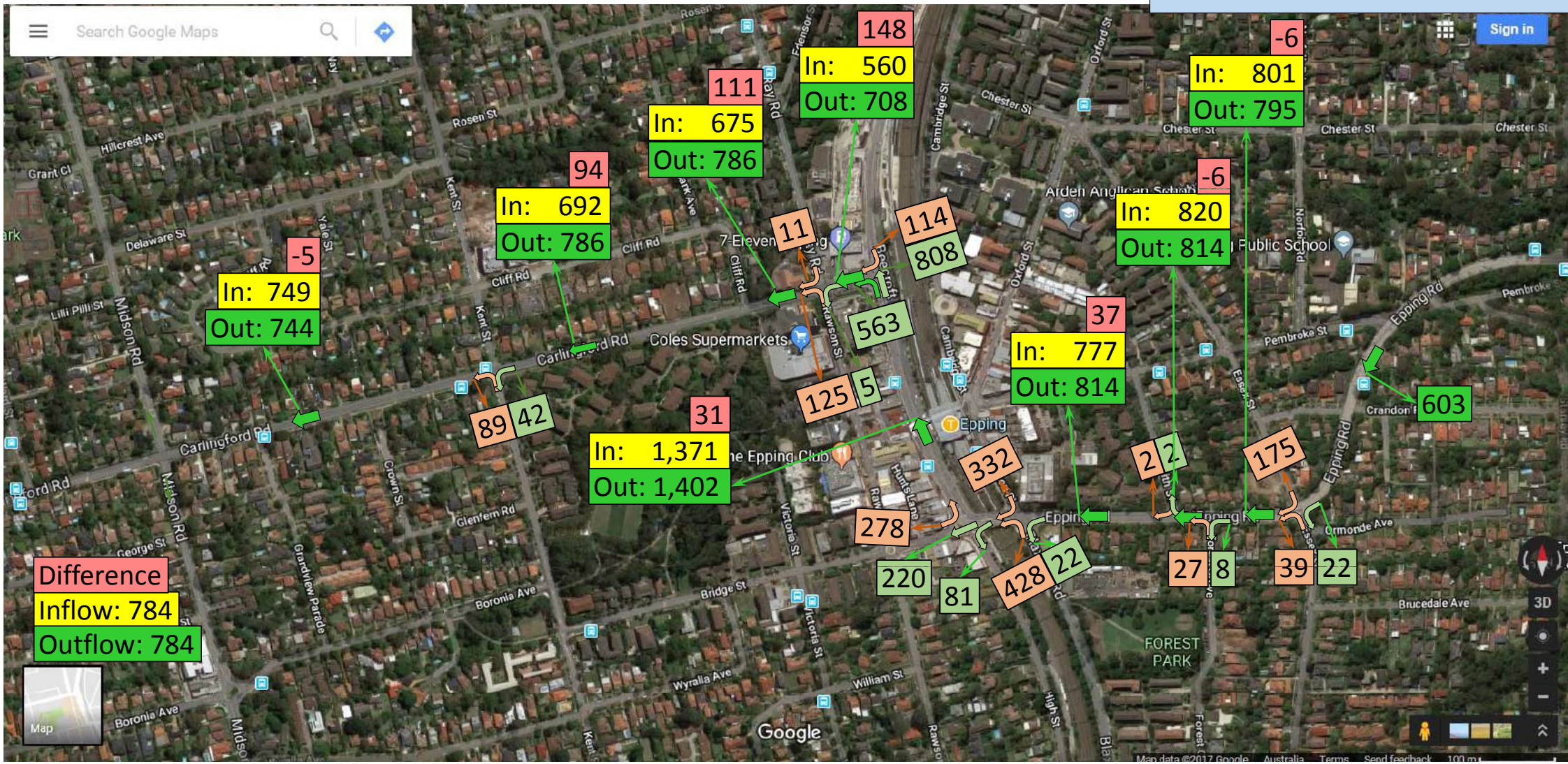
(e.g. input 20 for volume increase 20% or -20 for volume decrease 20%)


Church Parking
Midson Road Vet Clinic
KU Isobel
6
293
483
137
94
FOREST PARK
Forest Grove
626
309
11
271
91
887
390
Maida Rd
Rawson St
Blaxland Rd

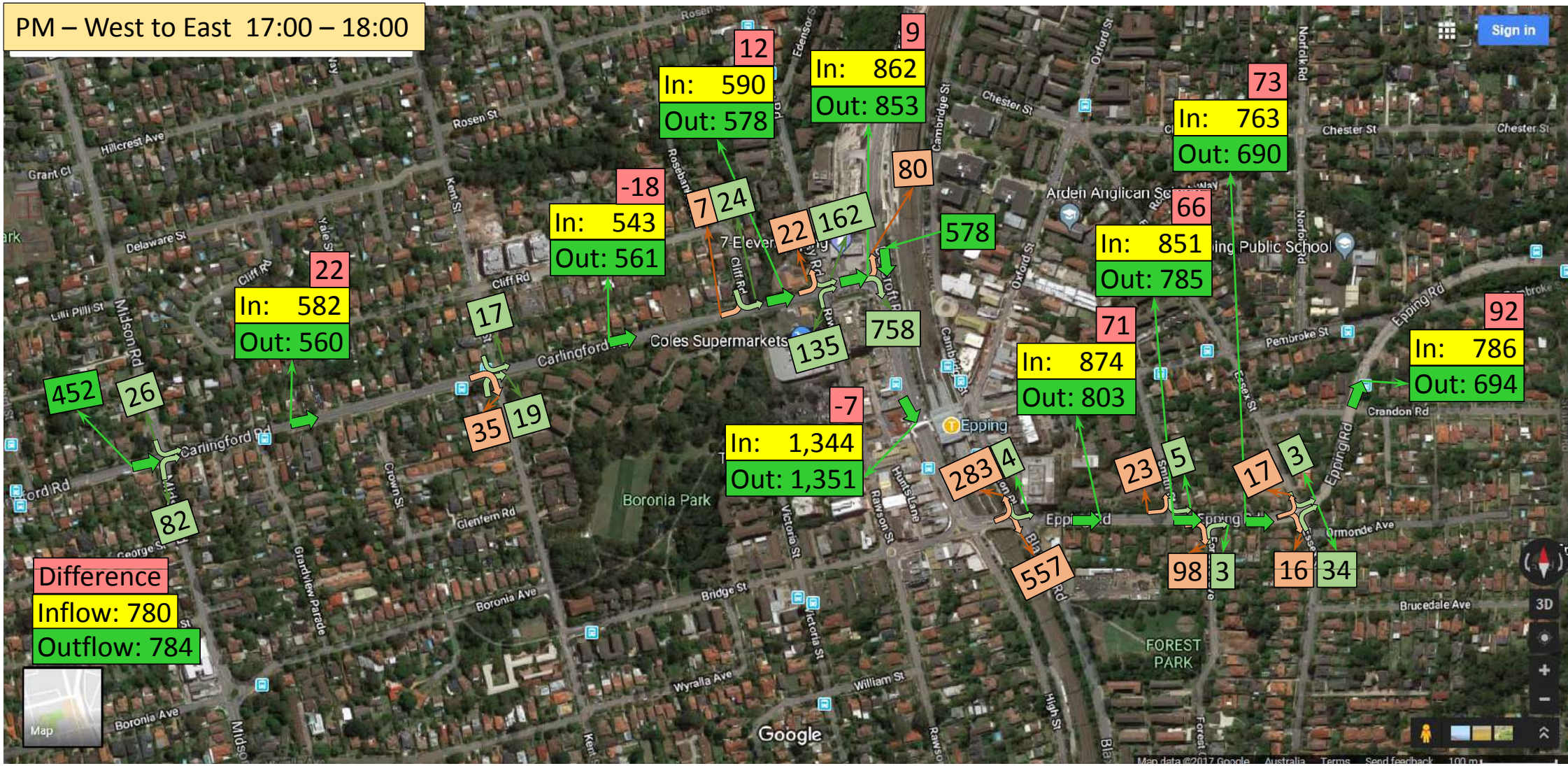
AM – west to East 08:00 – 09:00



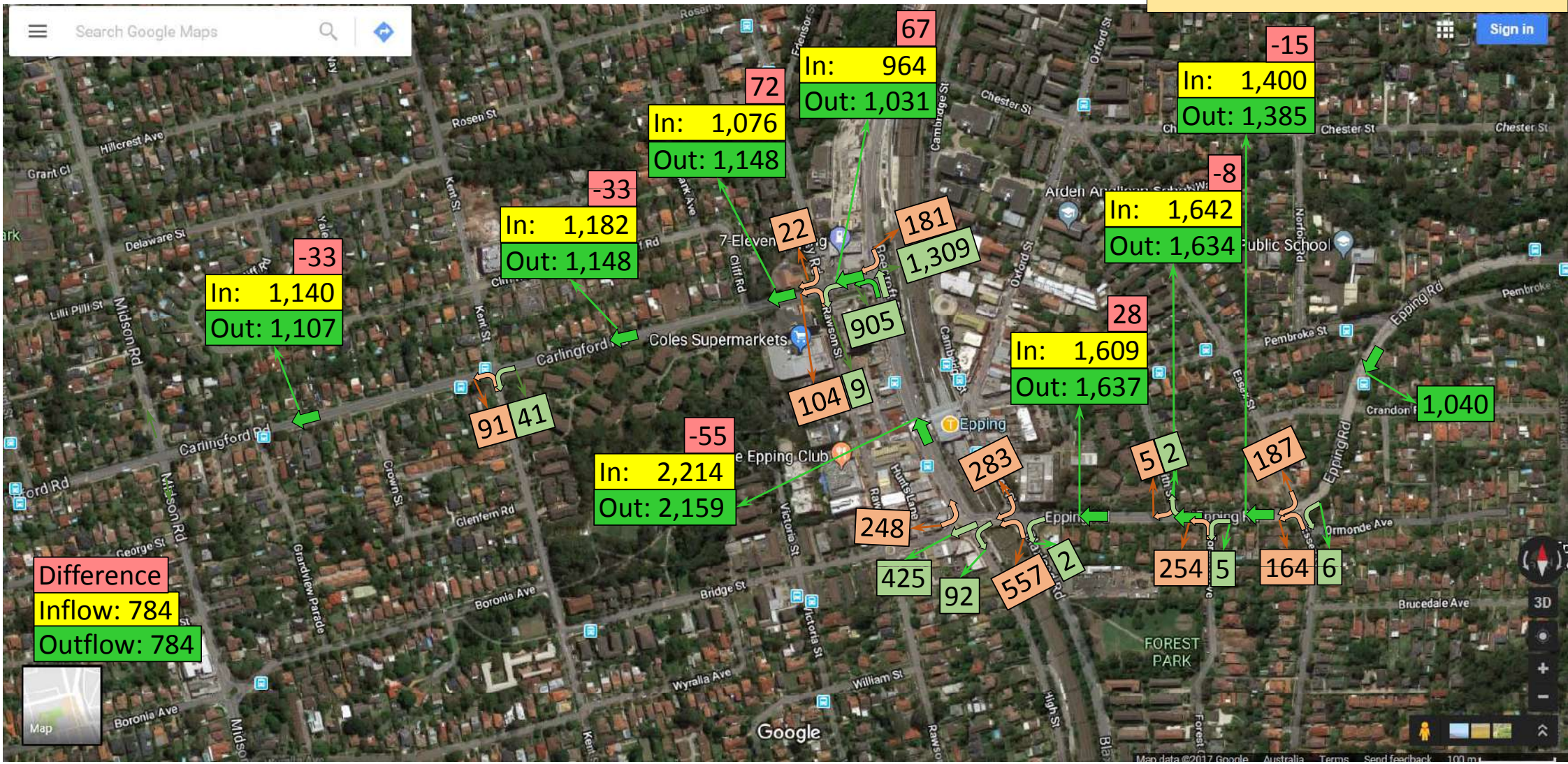
AM – East to West 08:00 – 09:00



PM – West to East 17:00 – 18:00

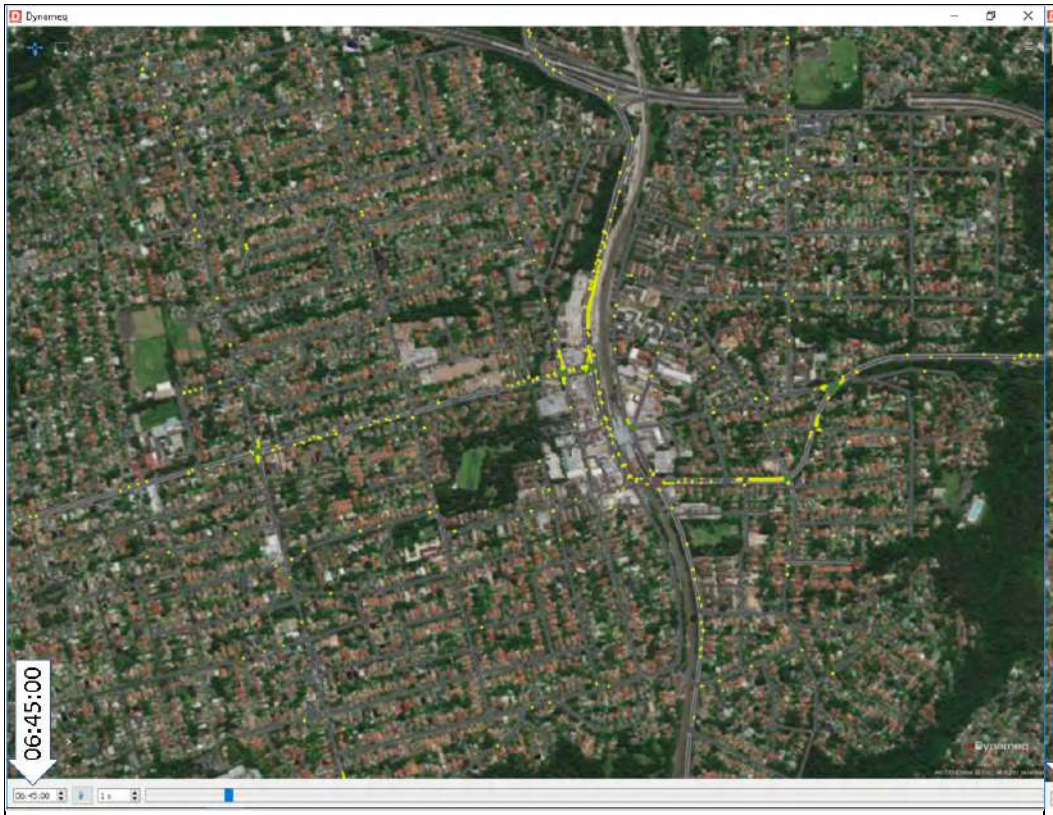


PM – East to West 17:00 – 18:00



Appendix B

Traffic Queuing Outputs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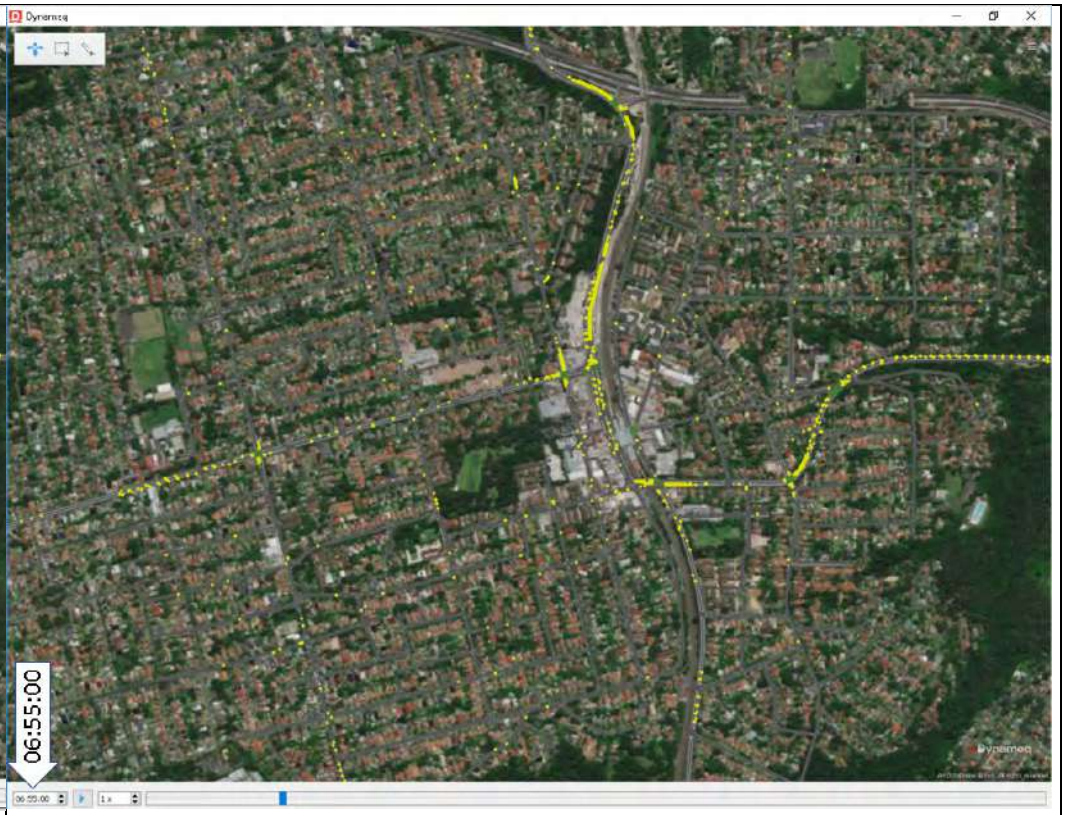
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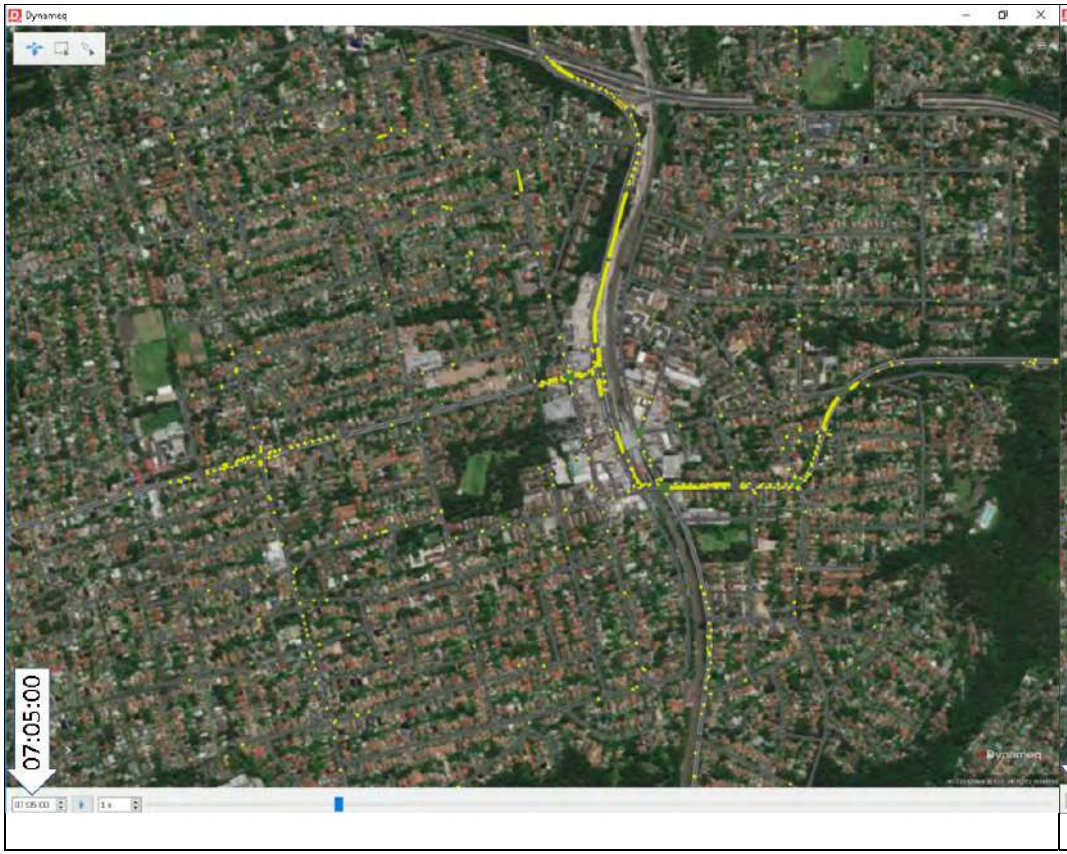
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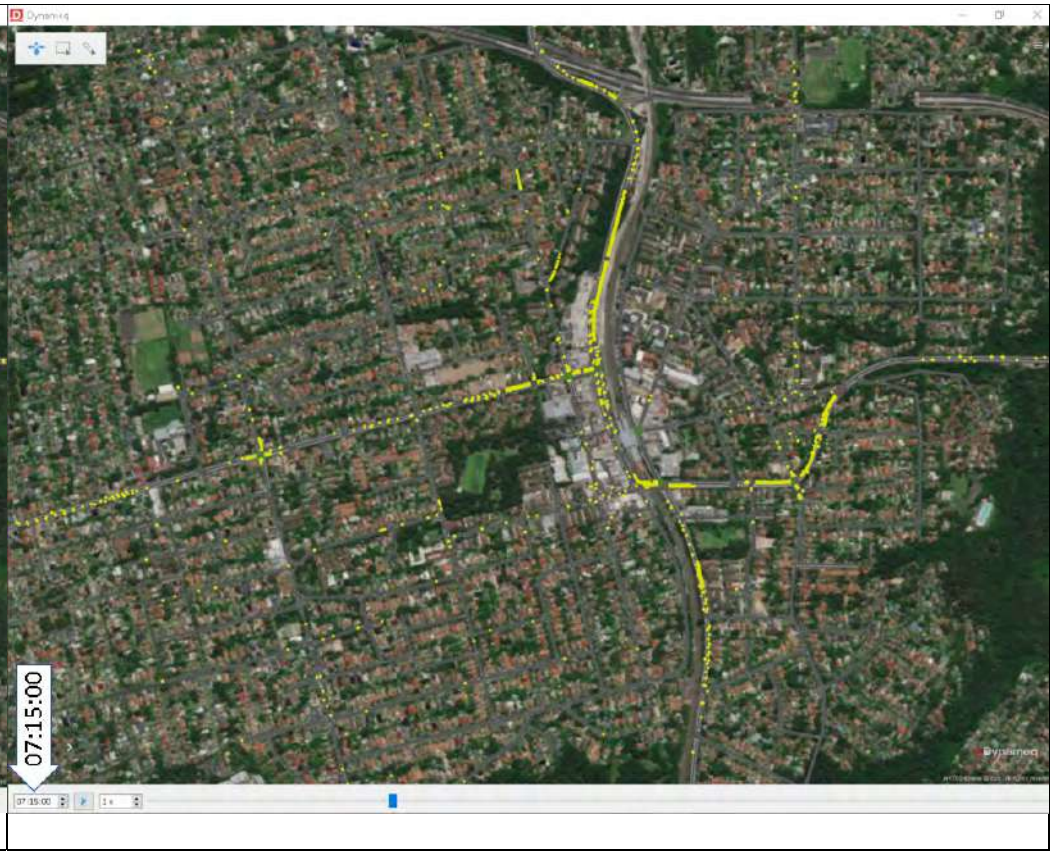
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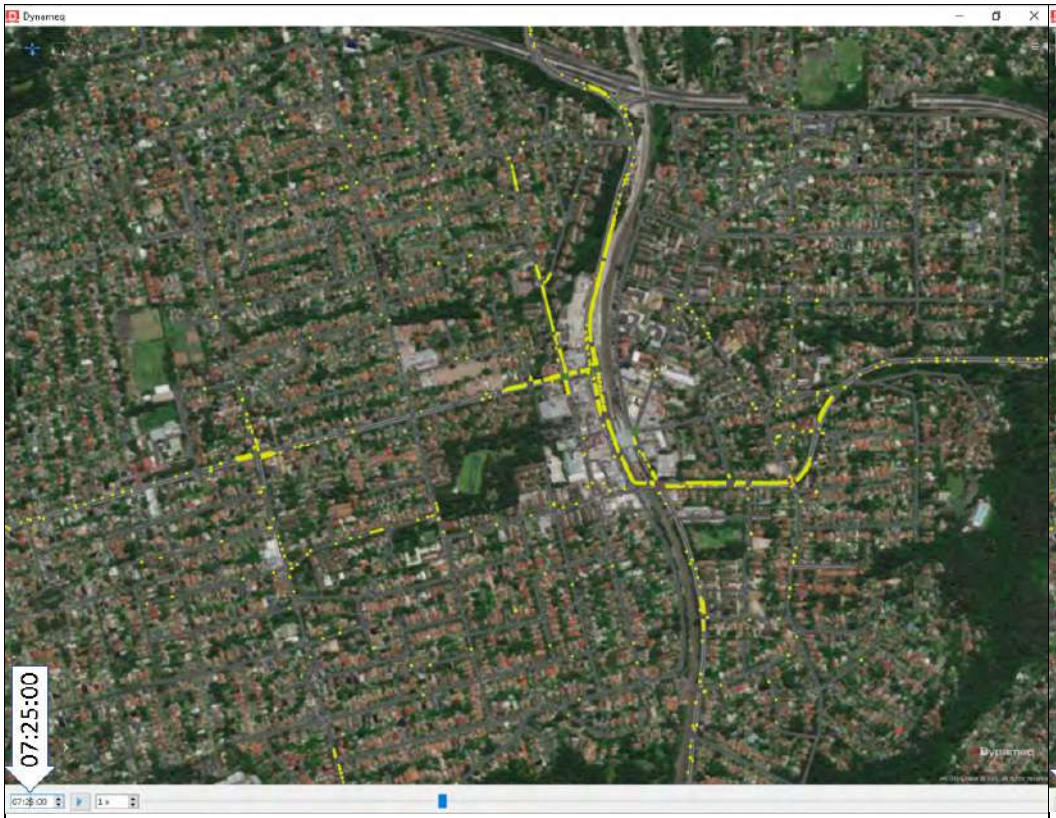
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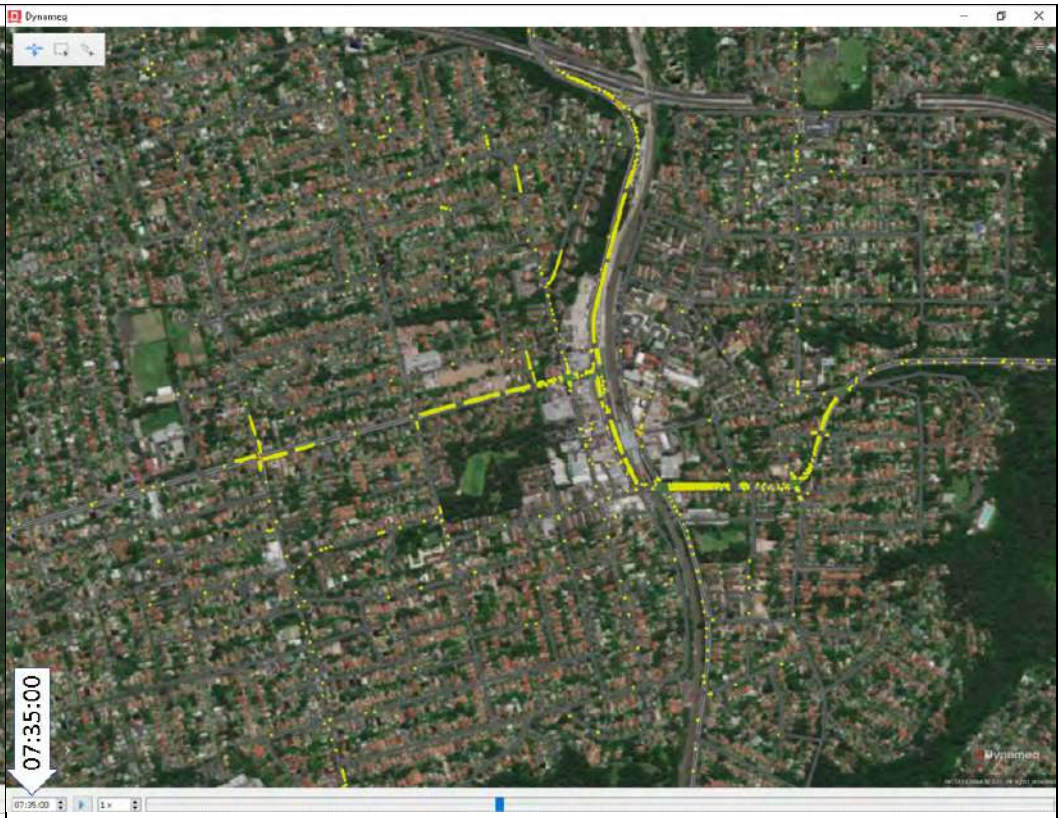
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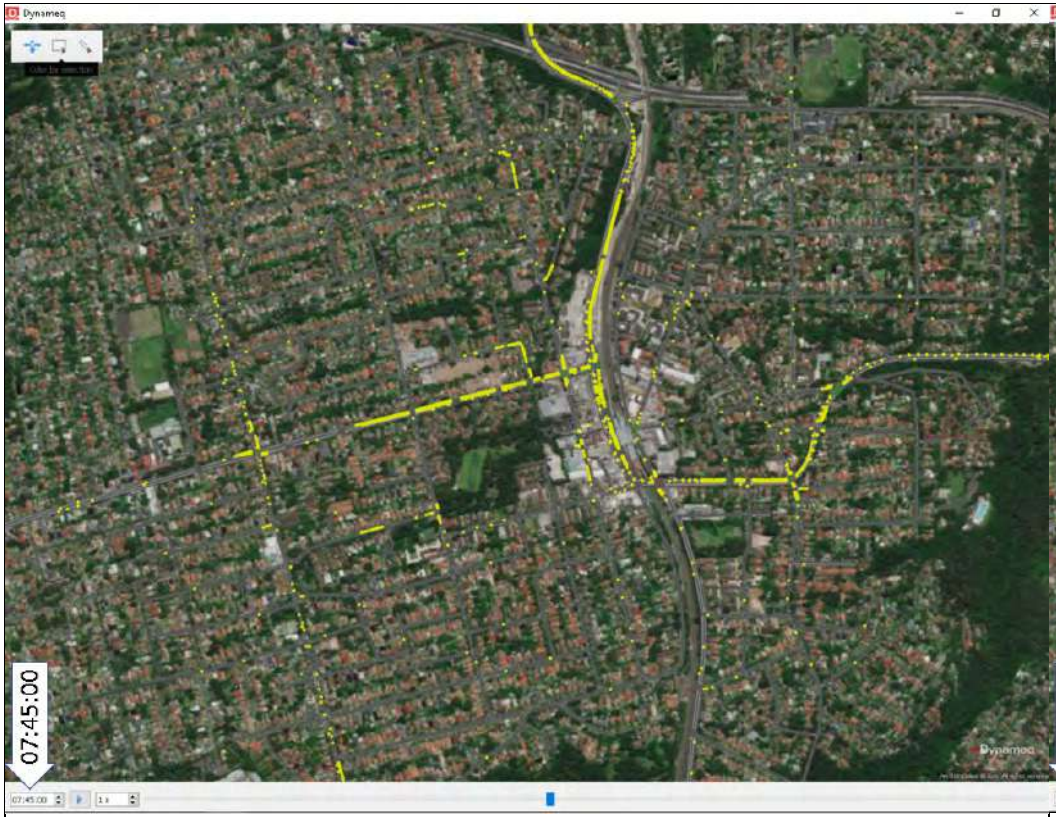
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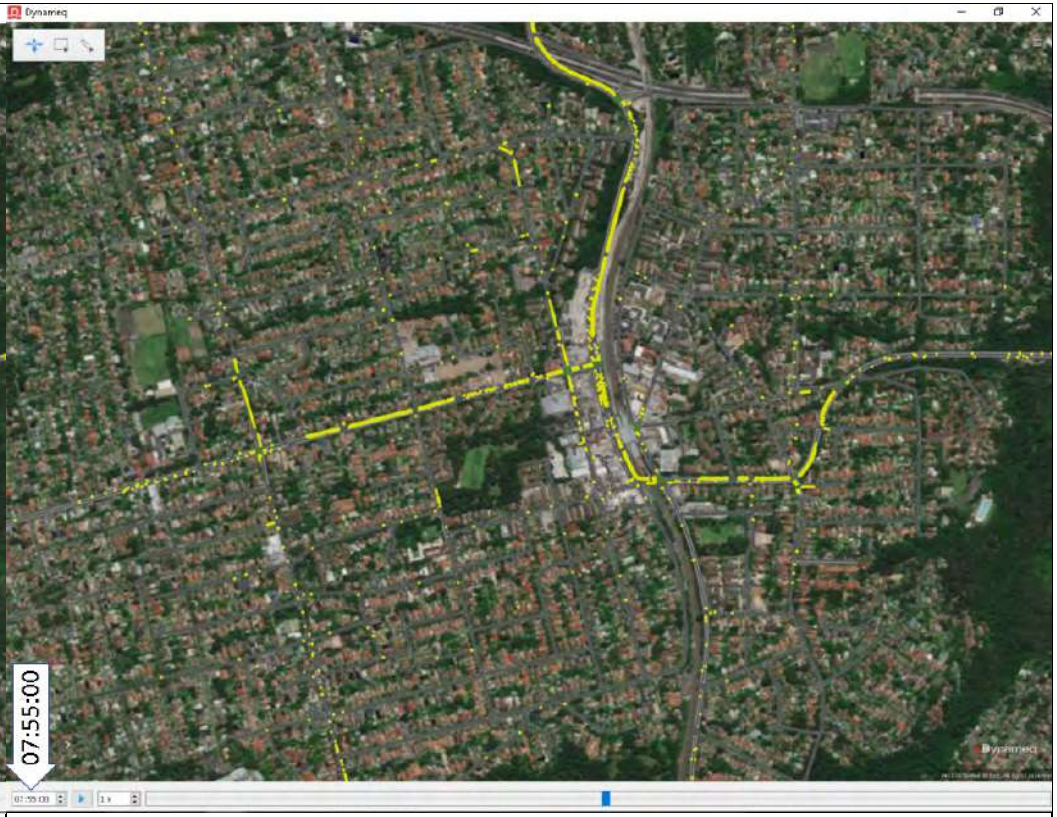
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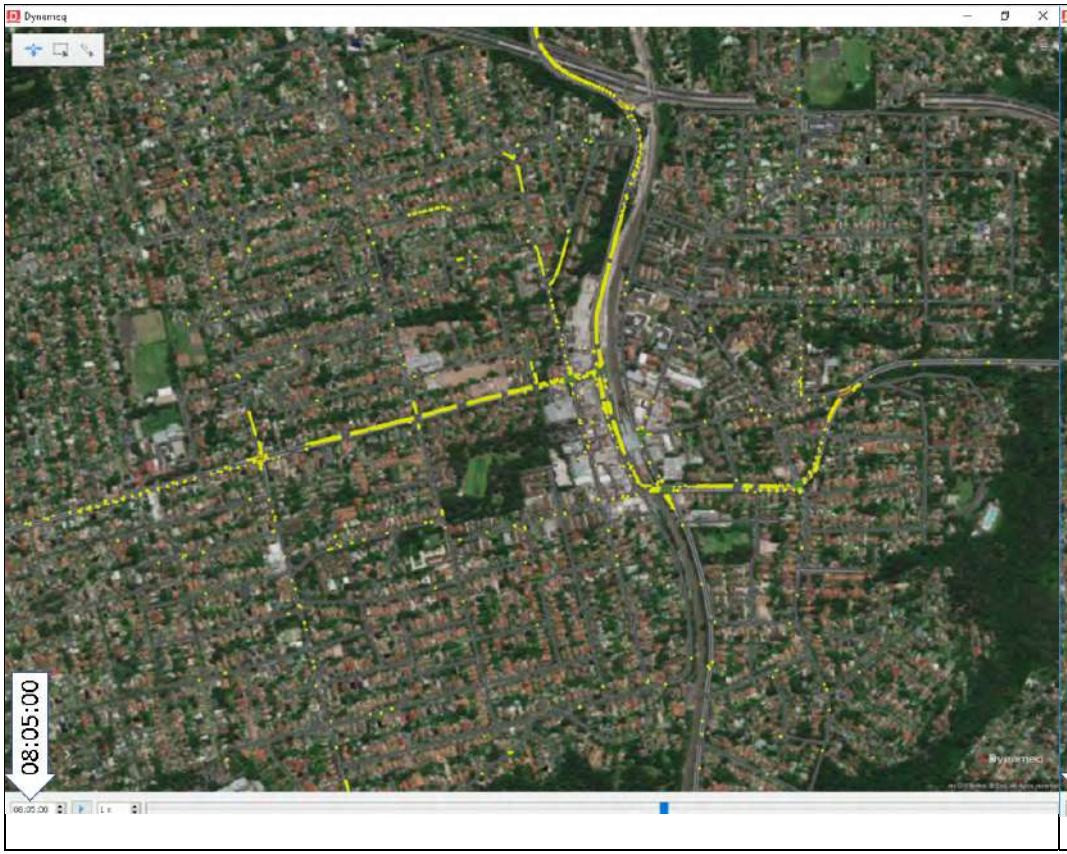
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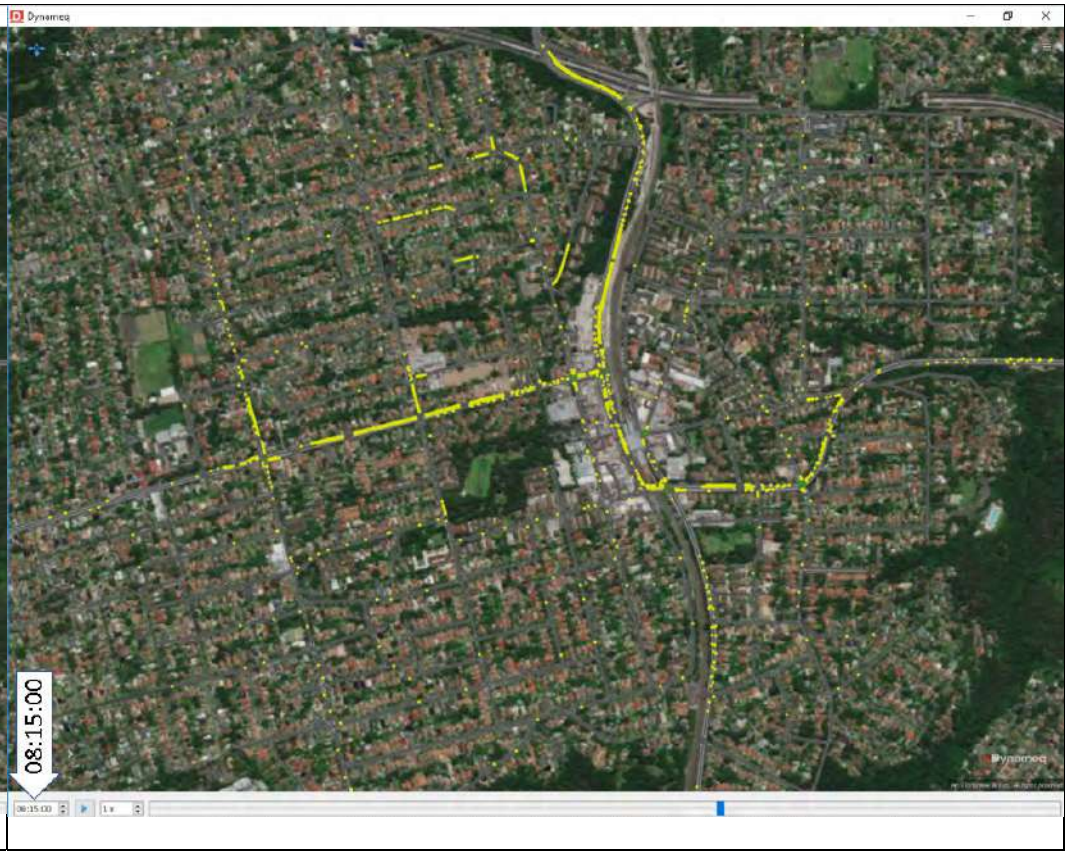
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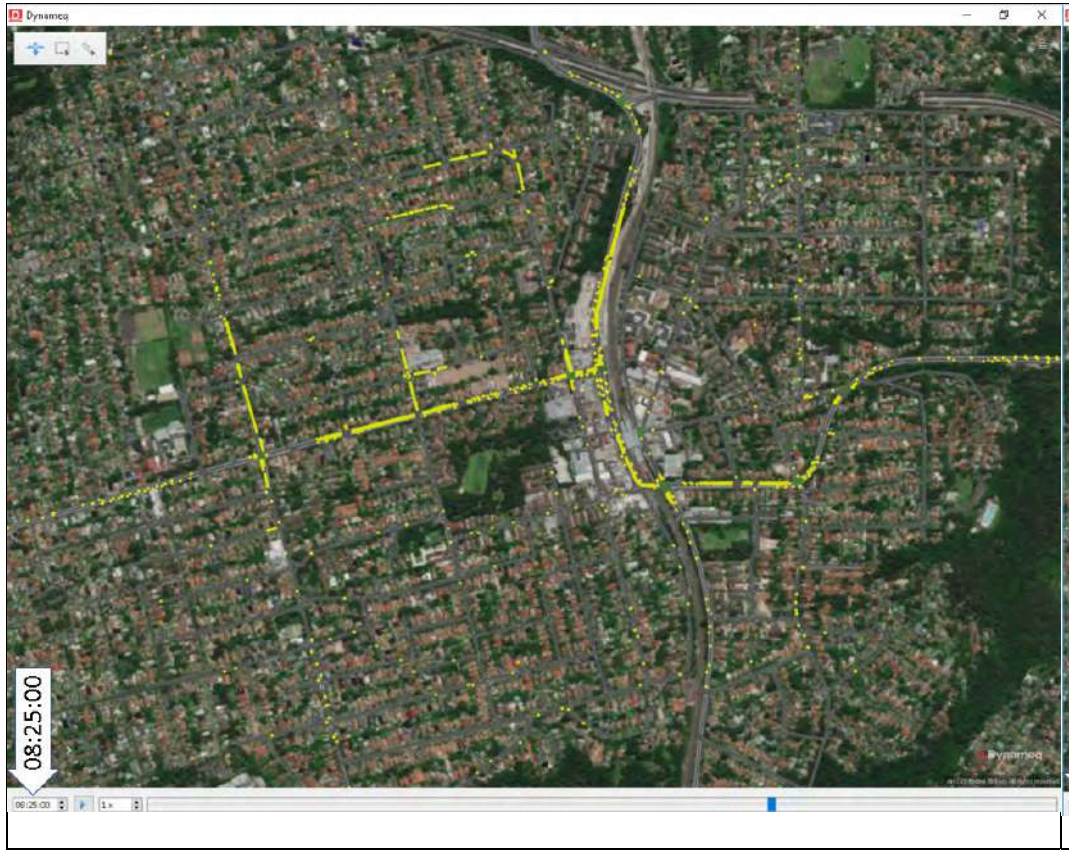
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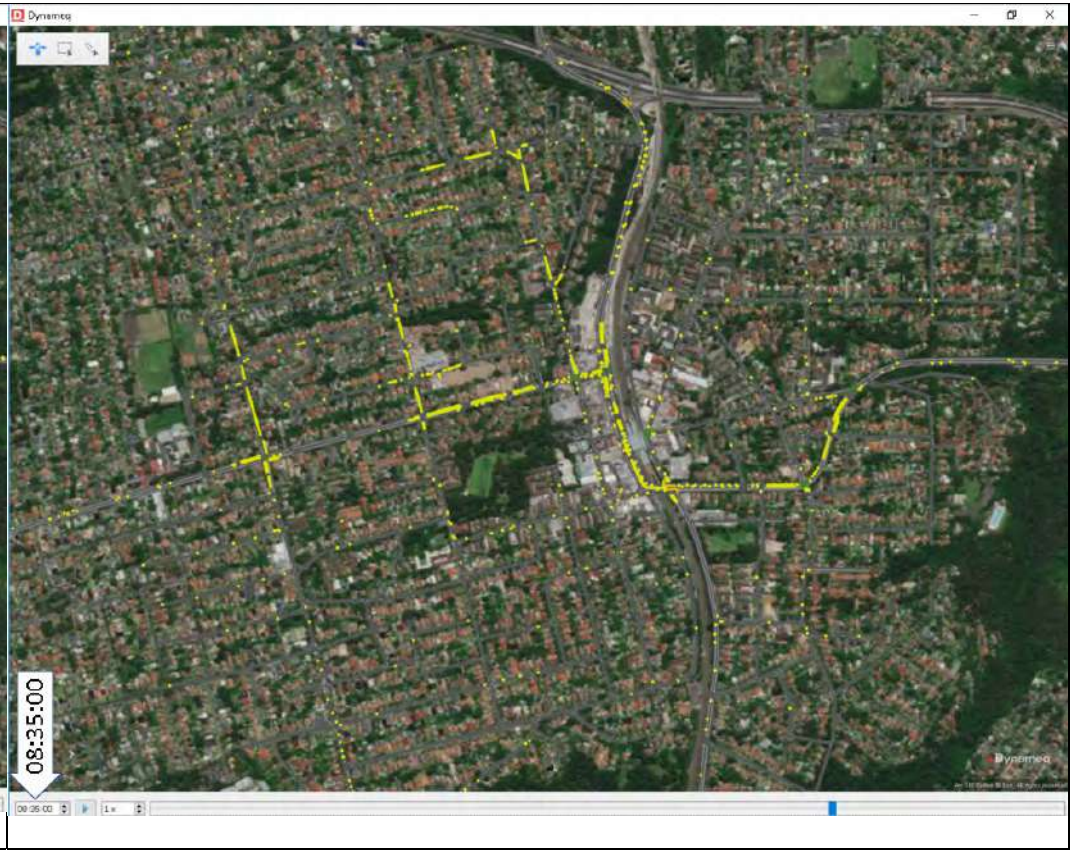
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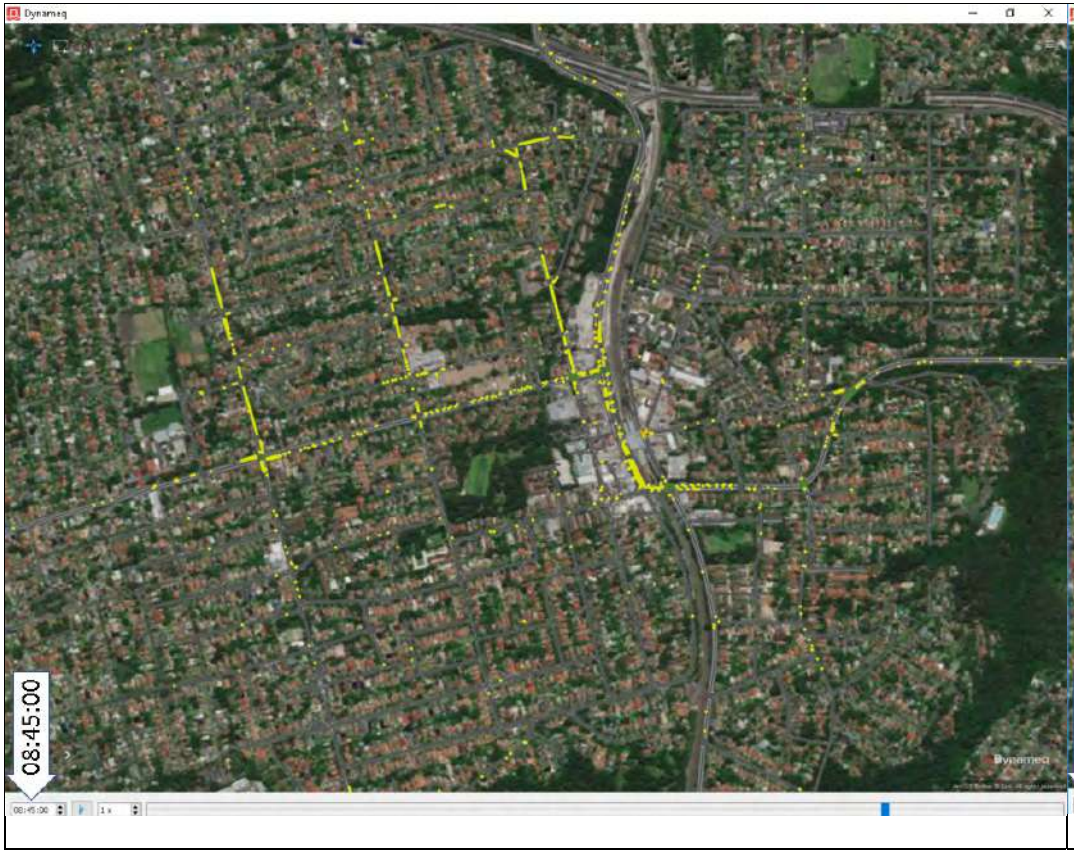
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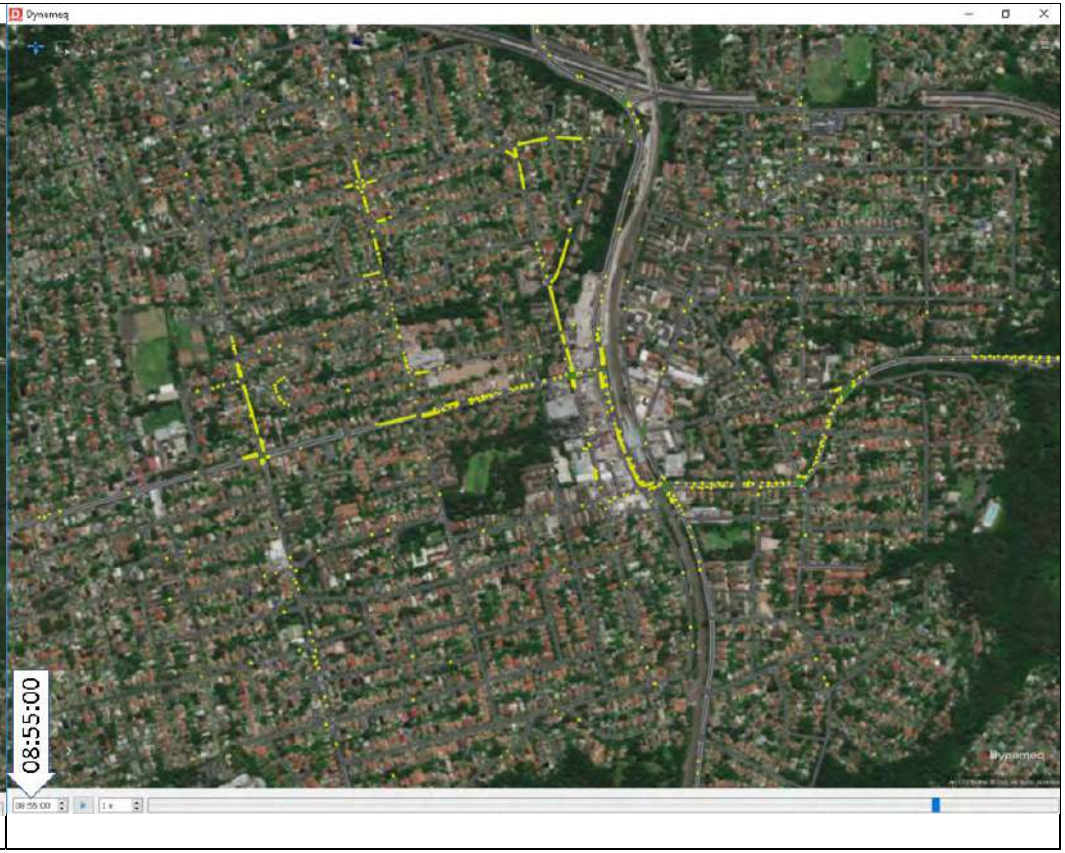
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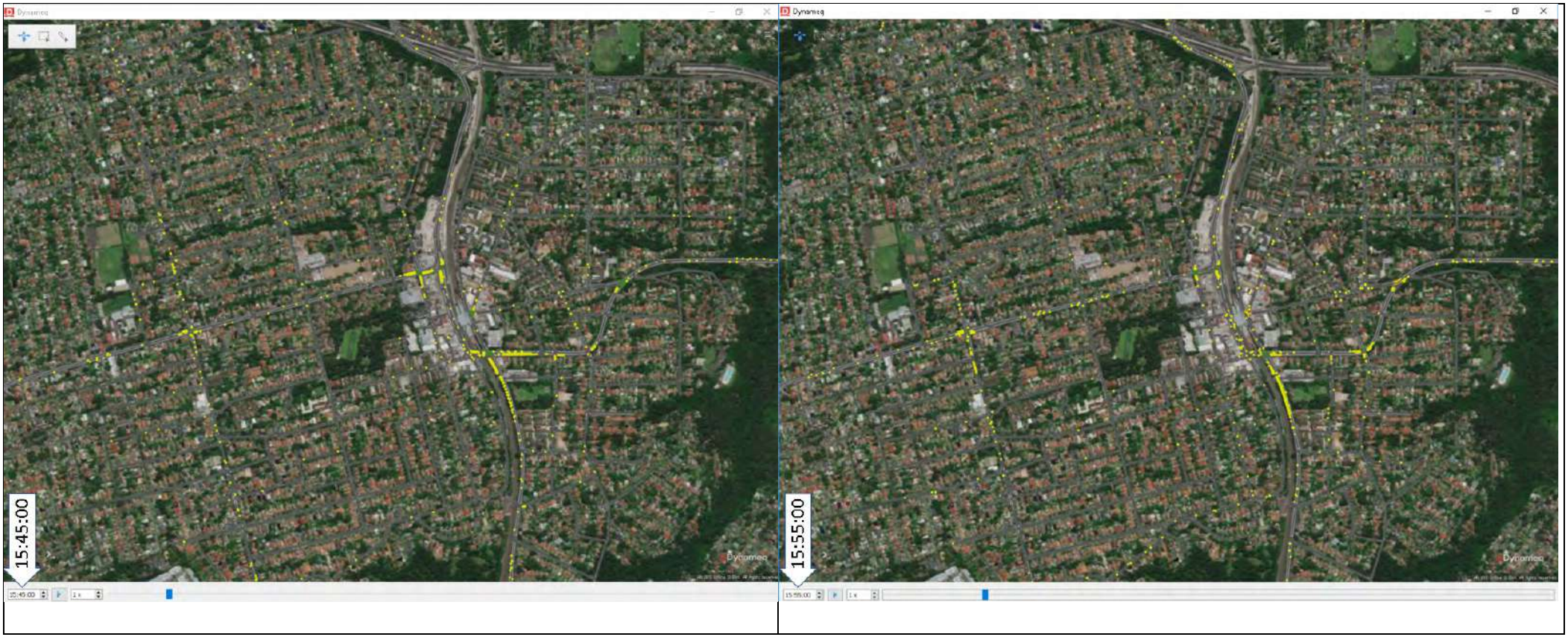
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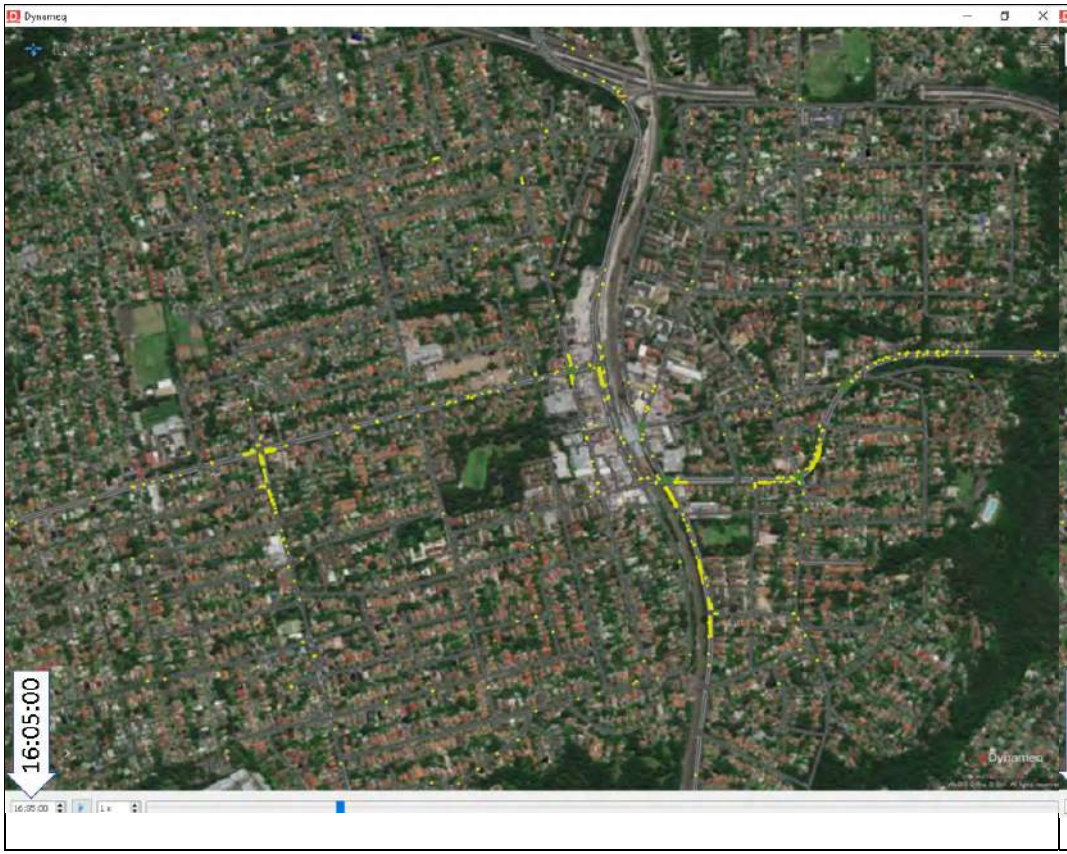
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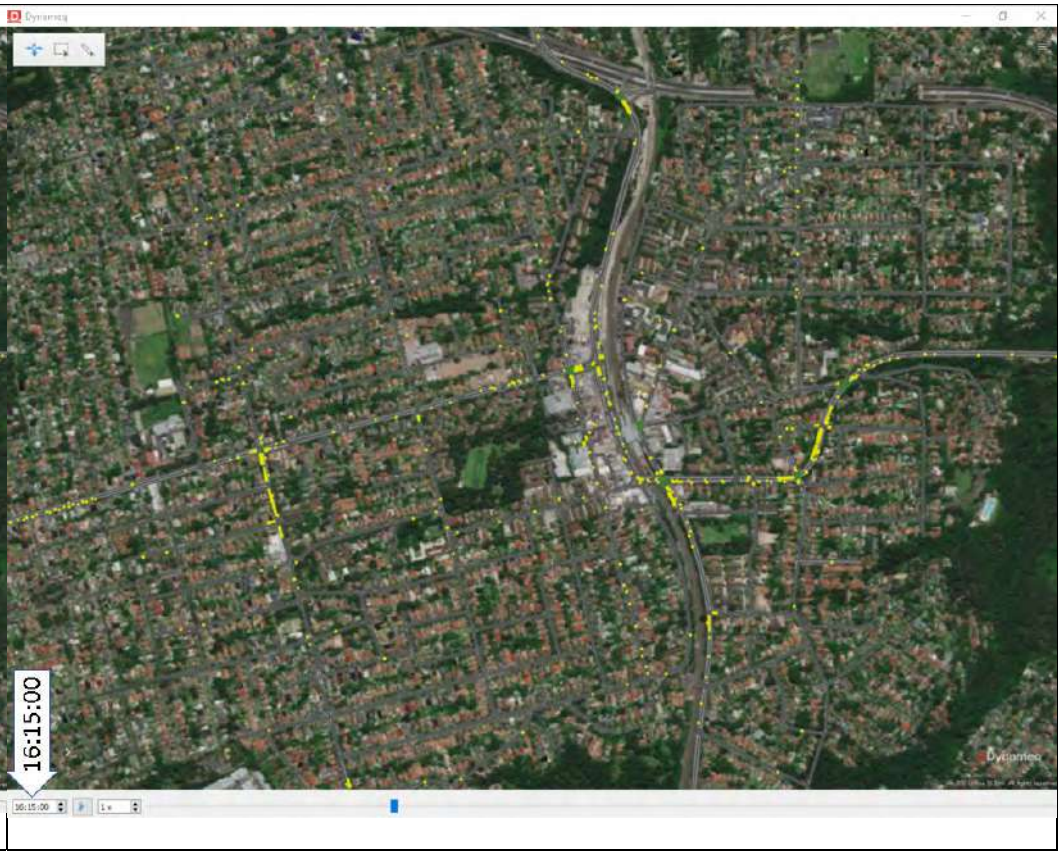
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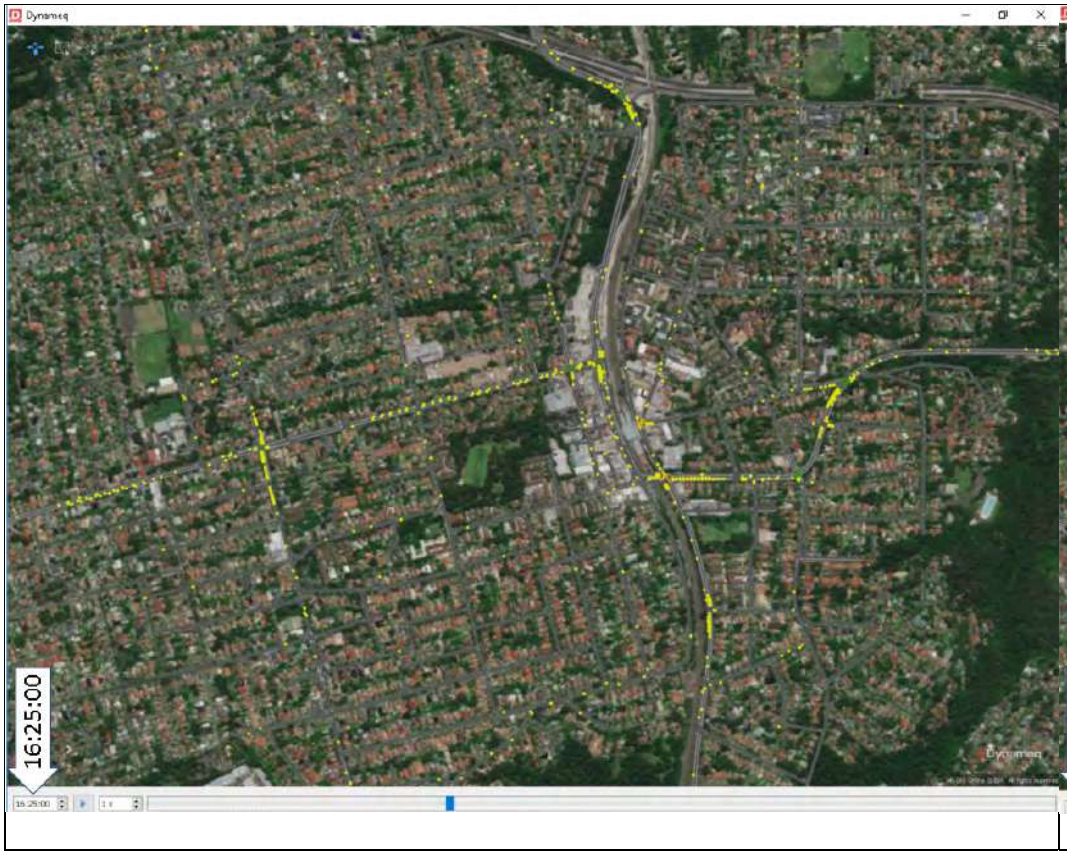
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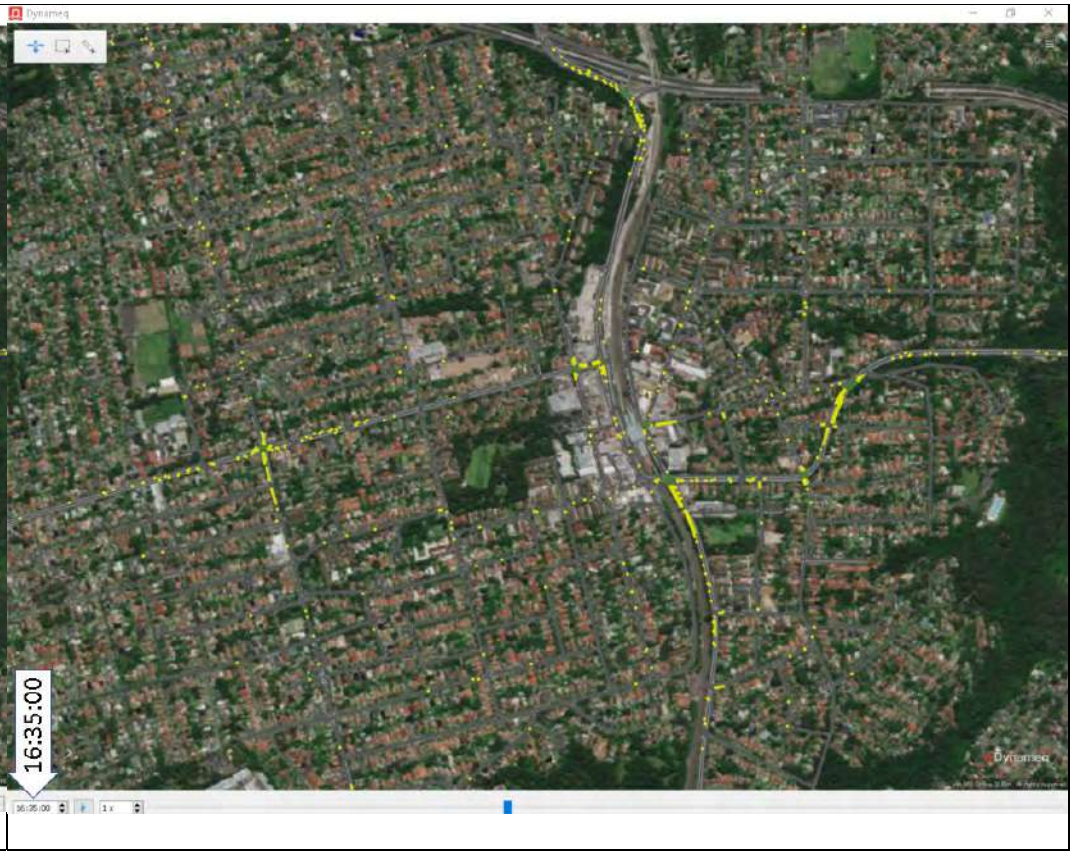
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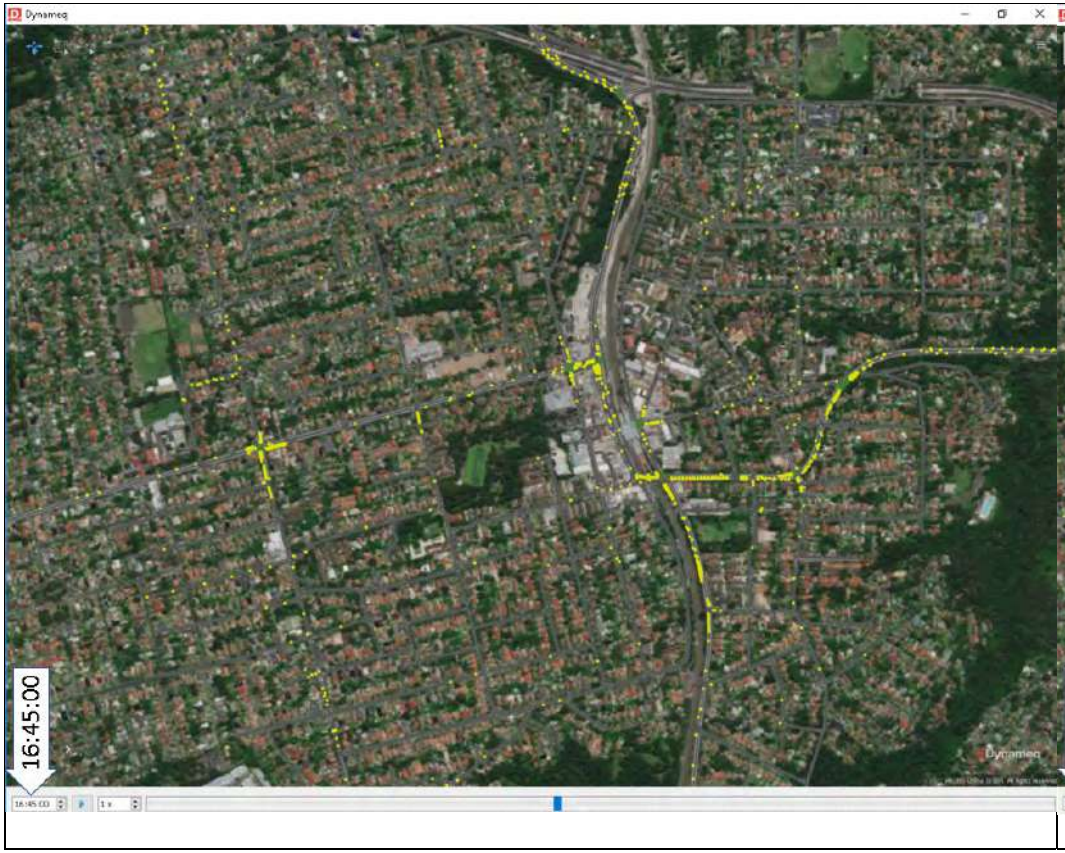
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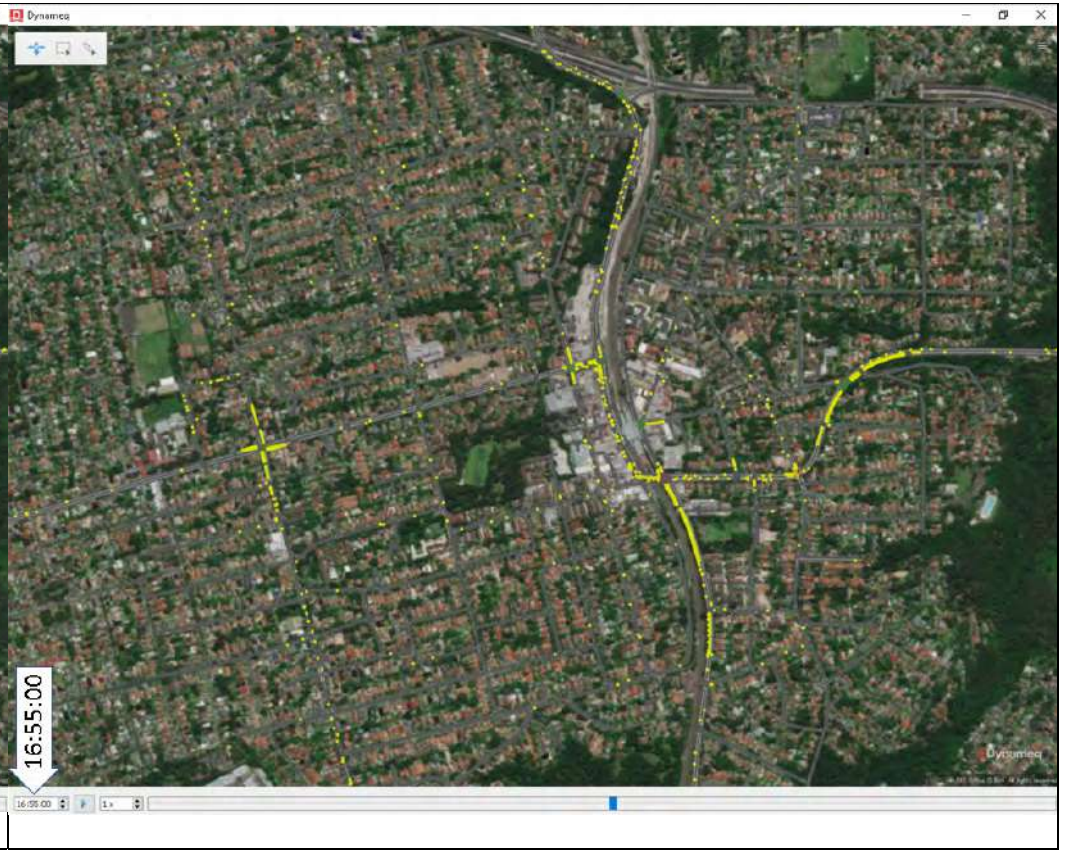
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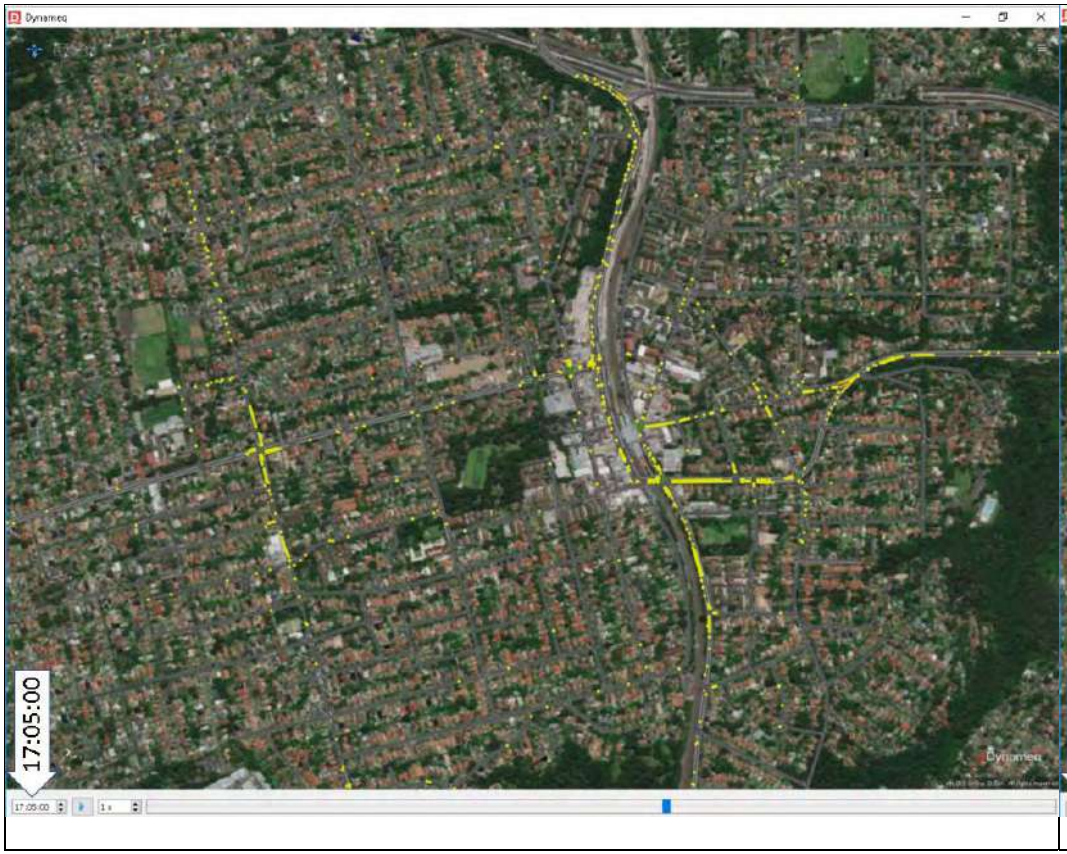
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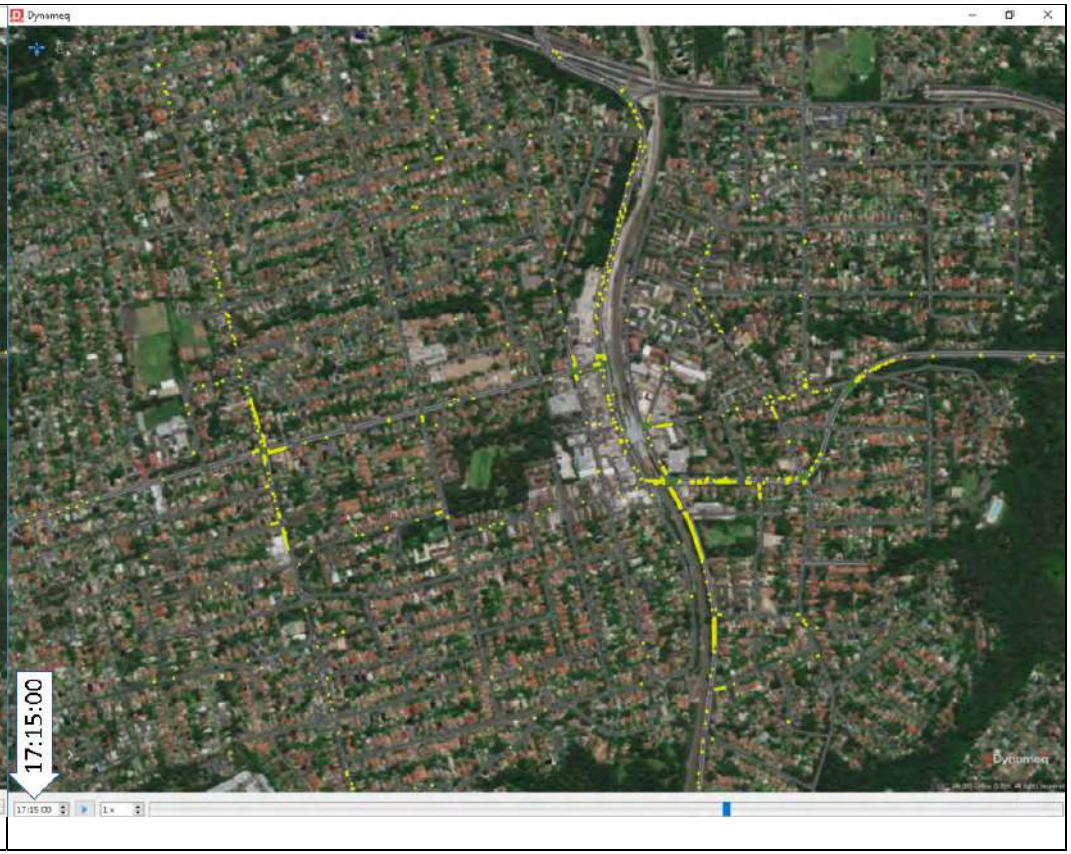
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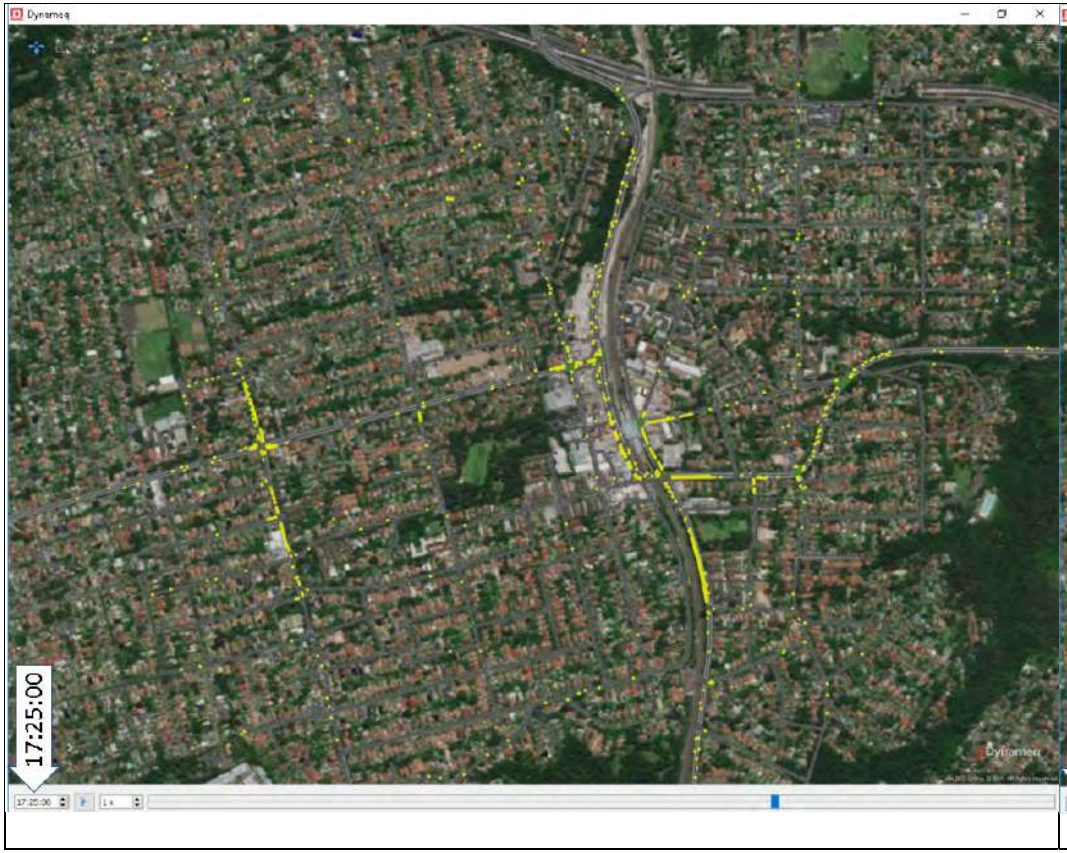
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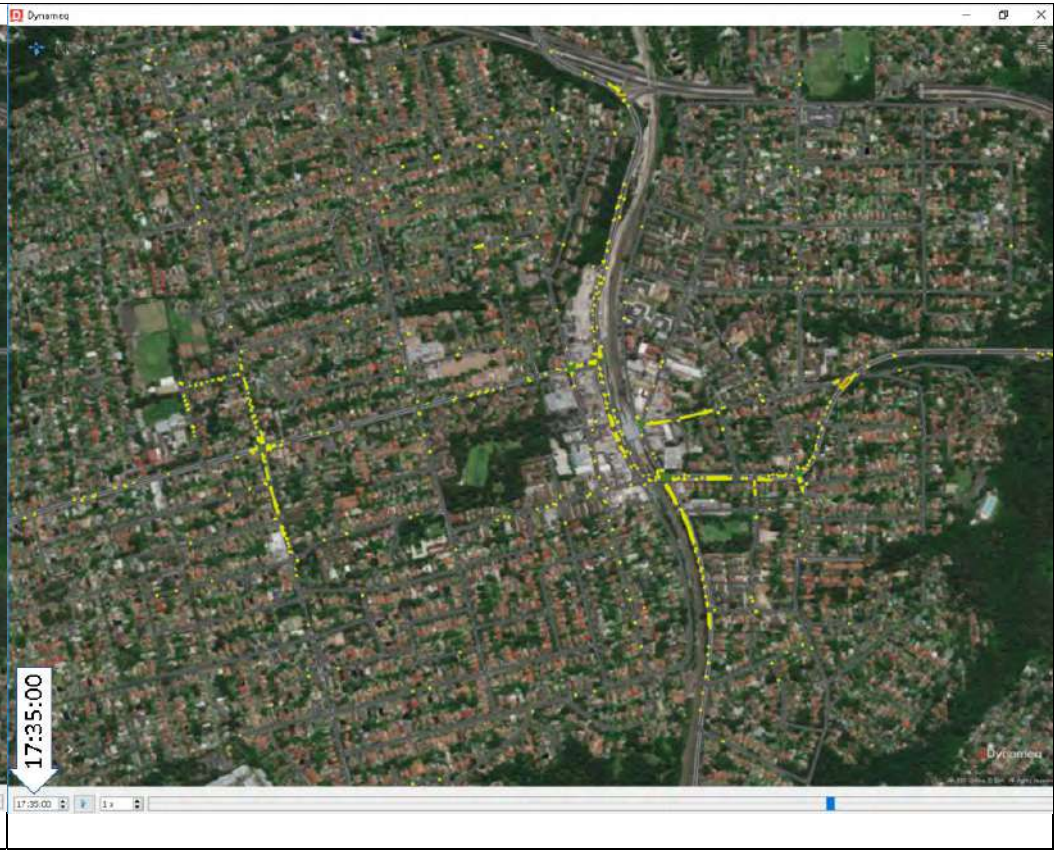
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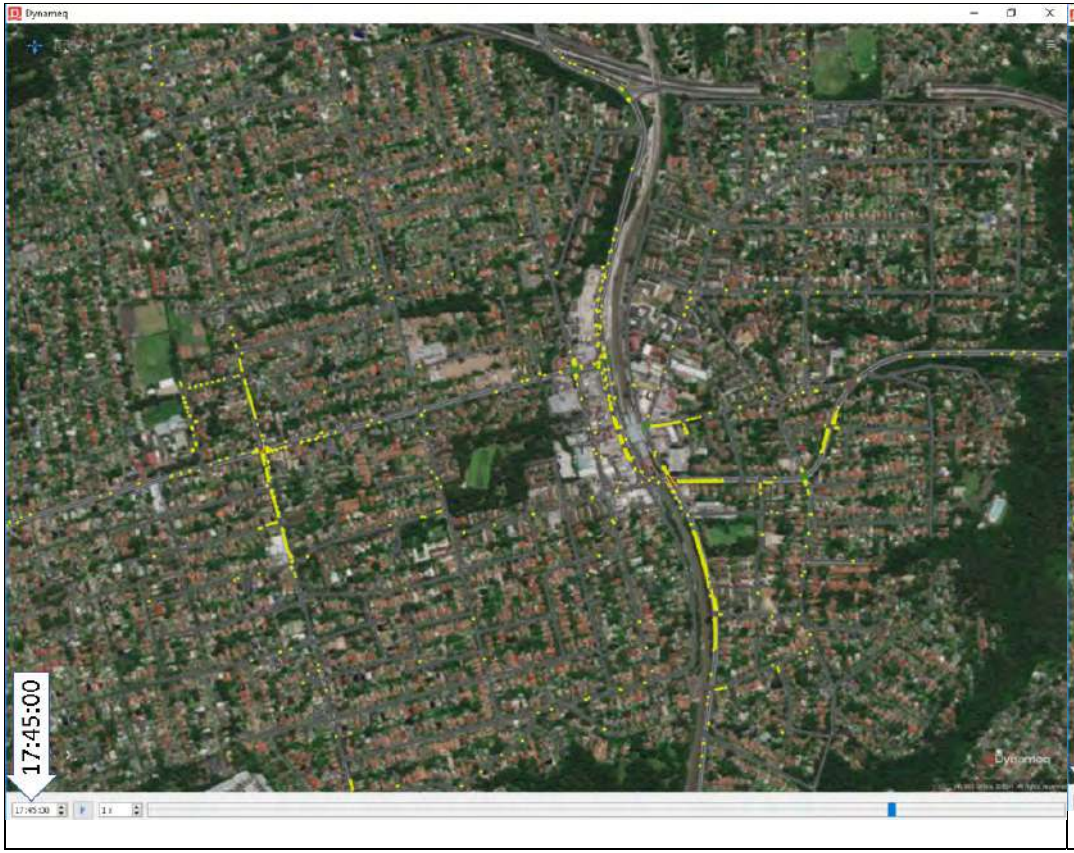
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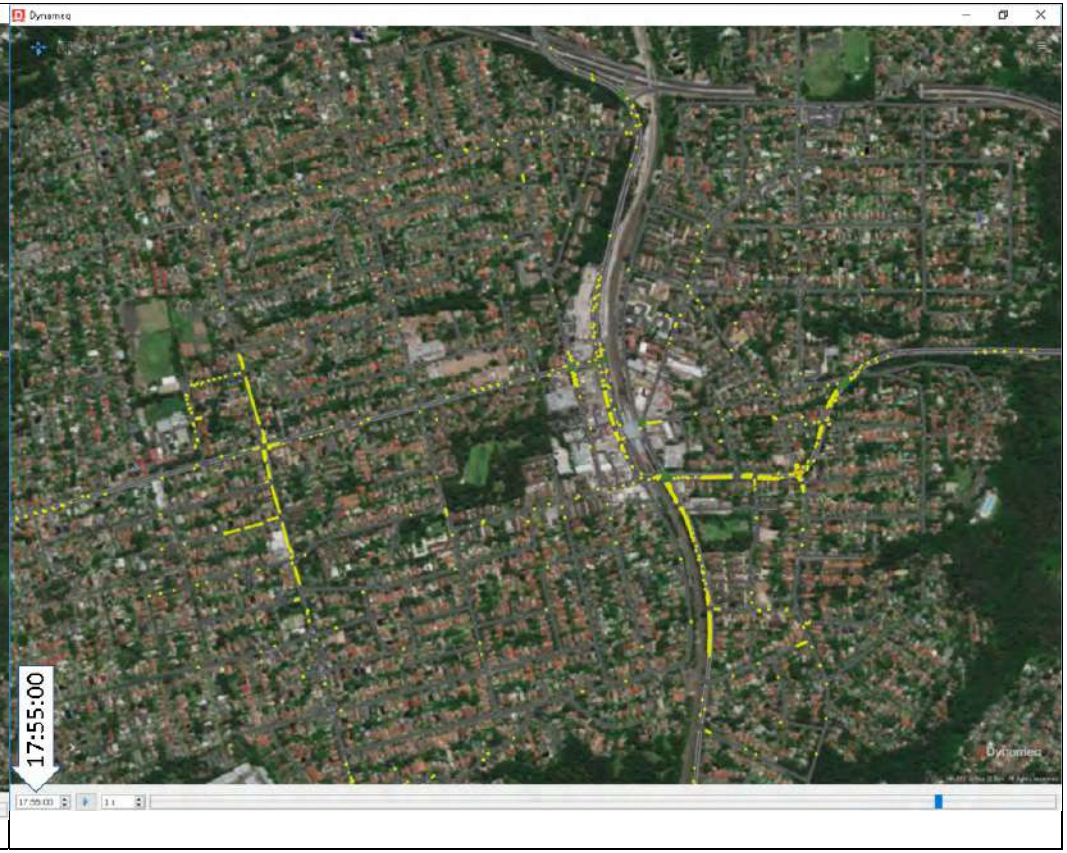
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Appendix C

5,000 dwellings growth location

\\Emmsvr1\emmJobs\2017\I17056 - Epping Town Centre\GIS\02_Maps\G010_DevelopmentA_20180423_01.mxd 23/04/2018

KEY

- Travel zone boundary
- Under construction
- DA approved
- Under assessment
- Not determined
- Preliminary lodgement
- Heritage conservation area
- B2 zone - potential development
- R4 zone - potential development
- R3 zone - potential development
- Epping Town Centre
- Heritage
- Preliminary lodgement

Epping - Current and potential development - North-west

Epping Town Centre traffic study

Figure C.1

EMM

\\Emmsvr1\emmJobs\2017\J17056 - Epping Town Centre\GIS\02_Maps\G011_DevelopmentB_20180423_01.mxd 23/04/2018

KEY

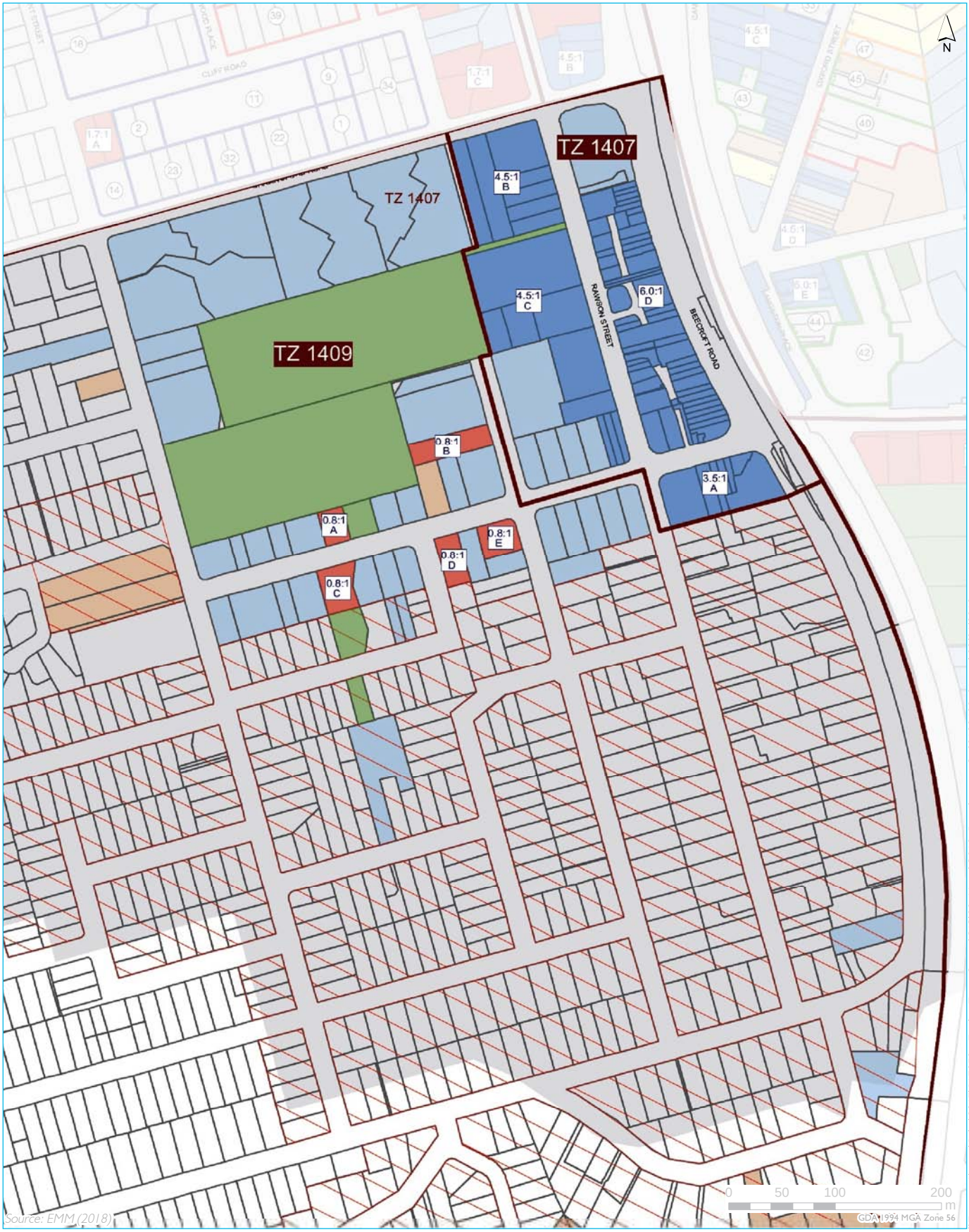
- Travel zone boundary
- Under construction
- DA approved
- Under assessment
- Not determined
- Preliminary lodgement
- Heritage conservation area
- B2 zone - potential development
- R4 zone - potential development
- R3 zone - potential development
- Epping Town Centre
- Heritage
- Preliminary lodgement

Epping - Current and potential development - North-east

Epping Town Centre traffic study

Figure C.2

EMM



KEY

- Travel zone boundary
- Under construction
- DA approved
- Under assessment
- Not determined
- Preliminary lodgement
- Heritage conservation area
- B2 zone - potential development
- R4 zone - potential development
- R3 zone - potential development
- Epping Town Centre
- Heritage
- Preliminary lodgement

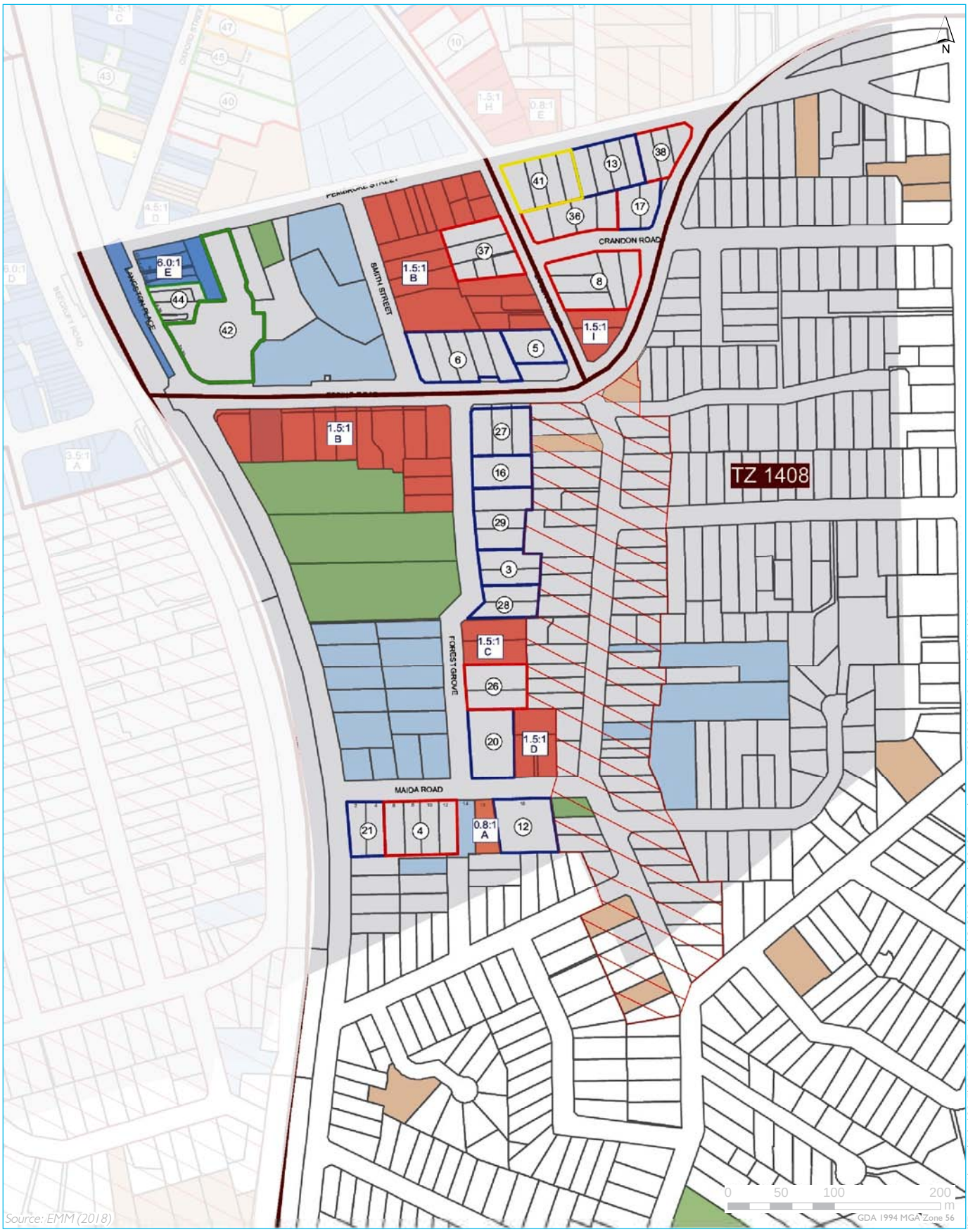
Epping - Current and potential development - South-west

Epping Town Centre traffic study

Figure C.3

EMM

\\Emmsvr1\emmJobs\2017\J170056 - Epping Town Centre\GIS\02_Maps\G012_DevelopmentC_20180423_01.mxd 23/04/2018



KEY

- Travel zone boundary
- Under construction
- DA approved
- Under assessment
- Not determined
- Preliminary lodgement
- Heritage conservation area
- B2 zone - potential development
- R4 zone - potential development
- R3 zone - potential development
- Epping Town Centre
- Heritage
- Preliminary lodgement

Epping - Current and potential development - South-east

Epping Town Centre traffic study

Figure C.4

EMM

DA Approved/DA Approved and Under Construction

Travel Zone	Figure Reference	Node	Radius Sector	Units	
1403	1	53016	3	88	
	2			39	
	9			36	
	11			141	
	14			33	
	22			78	
	23			77	
	32			40	
	34			130	
	49			39	
	15	49508	3	35	
	30			99	
	31			0	(refused)
	39			133	
	18	53017	3	256	
	25			38	
				1262	**Total Units**
1404	7	53018	3	32	
	10			76	
	8	53021	3	87	
	13			52	
	17			30	
	36			63	
	38			40	
	41			66	
	24	49501	4	12	
				458	**Total Units**
1406	19	53001	2	119	
	35			501	
	48			222	
	33	53002	2	54	
	46			295	
	43	50005	2	83	
	40	53003	1	254	
	42	51001	1	464	
	44			104	
	5	53022	2	30	
	6			90	
	37			64	
	45	49503	2	200	
	47			179	
				2659	**Total Units**
1407	50	53007	1	147	
				147	**Total Units**
1408	3	53023	3	37	
	16			36	
	27			57	
	28			37	
	29			70	
	20	53024	3	55	
	26			55	
	4	53025	3	60	
	12			36	
	21			27	
				470	**Total Units**
				4996	**Grand Total**

Appendix D

10,000 dwellings growth location

Travel Zone	Node	Location of Identified Future Potential Developments Figure Reference	Radius Sector	Units	
	1402	49505			
		49553			
		53014	B	2	159
		53015	A	3	265
					424 Total Units
	1403	49507			
		49508	B	3	52
		49525			
		49526			
		49550			
		49551			
		49552			
		50001			
		53016	A	3	33
		53017	C	3	94
		53029			
					179 Total Units
	1404	49501	A	4	34
		49533			
		49534			
		49535	B	3	109
		49536	C	3	56
		49547	D	3	38
		49548			
		50003	F	3	33
		53018	G	3	81
		53019	E	3	14
		53020	H	3	72
		53021	I	3	31
		53030			
					468 **Total Units**
	1406	49502			
		49503			
		49504			
		49557			
		50004			
		50005	C	2	581
		51001	E	1	204
		53001	A	2	113
		53002			
		53003	D	1	56
		53004			
		53022	B	2	251
					1205 Total Units
	1407	49530	C	1	756
		53005	A	1	215
		53006			
		53007	D	1	1007
		53008			
		53009			
		53010			
		53011			
		53012			
		53013	B	1	450
					2428 **Total Units**
	1408	49505			
		49520			
		49521			
		49537			
		49549			
		49554			
		53023			
		53024	D	3	45
		53025	A	3	10
		53026	B	2	234
		53027	C	3	44
		53028			
					333 Total Units
	1409	49514			
		49515	C	3	13
		49516			
		49518	B	3	15
		49519	A	2	7
		49531			
		49532	D	3	10
		49558			
		53031	E	2	11
					56 Total Units
					5093 Grand Total

Appendix E

RMS Road Improvements

Epping Intersection Improvements

Frequently asked questions

Overall project

What are the Epping Town Centre improvements?

Epping Town Centre is one of eight precincts covered under the NSW Government's Urban Activation Precincts Program.

The Roads and Maritime Services is delivering the Epping Town Centre project, which includes:

- Project 1: upgrading the Beecroft Road and Carlingford Road intersection
- Project 2: widening the southern side of Epping Road by about 3.7 metres between Essex Street and Blaxland Road, to provide an additional westbound lane.

Project 1 is due to be completed in early 2018 and includes:

- widening Beecroft Road on the eastern side of the intersection
- providing an additional right turn lane from Beecroft Road southbound into Carlingford Road
- providing a third southbound lane on Beecroft Road north of Carlingford Road
- upgrading the left turn slip lane from Carlingford Road onto Beecroft Road
- providing a new traffic light pedestrian crossing on the western side of the intersection
- building a 90 metre long retaining wall on the eastern side of Beecroft Road next to the rail corridor
- vegetation removal
- upgrading traffic islands and traffic control signals
- adjusting property and utility services.

Project 2 started in mid-2017 and is due to be completed in mid-2018. The work includes:

- widening the southern side of Epping Road by about 3.7 metres between Essex Street and Blaxland Road to provide an additional westbound lane. The additional westbound lane would function as a dedicated left turn lane into Blaxland Road
- upgrading the Epping Road and Essex Street intersection including:
    - widening the north-eastern side of the intersection to provide an additional right turn lane onto Epping Road westbound. This would provide two marked right turn lanes and an unmarked shared left turn/through lane
    - providing new traffic light pedestrian crossings and pram ramps on all four approaches to the intersection
- building a raised central median about 340 metres long on Epping Road between Essex Street and Blaxland Road
- building a raised median about 20 metres long on Essex Street north of Epping Road intersection

- removal of right turns into and out of Forest Grove and Smith Streets
- removal of the right turn from Langston Place onto Epping Road westbound
- removal of the right turn from Epping Road into Essex Street in both directions
- providing a left turn lane from Essex Street onto Epping Road westbound.

What are the key benefits of the project?

The Epping Town Centre project aims to:

- improve traffic flow and road safety
- improve pedestrian access
- help reduce traffic delays and congestion.

What work has been done on Project 2 so far, and what work is to be completed?

We have surveyed the site, carried out demolition work, started our utility relocation work and set up the site compound. Work to be done includes:

- widening Epping Road westbound between Essex Street and Blaxland Road
- improving the intersection at Epping Road and Essex Street
- installing or improving dedicated turning lanes
- asphalting
- road marking.

Questions about the work schedule/construction (hours, noise, schedule)

What will your work schedule involve?

Our typical day working hours will be between **7am** and **6pm** from **Monday** to **Friday**, and **8am** to **1pm** on **Saturdays.** Our typical night time working hours will be between **9pm** and **6am.**

These work hours would be ongoing for four months.

From time to time we may need to work additional hours, including Sundays. The community will be notified if we work outside of these hours.

What is the work schedule?

The expected work schedule is outlined below:

Activity	Timing	Time of the day most construction will happen	Noise Level
Water main relocations	February and March 2018	Mainly days, some night shifts needed	Less Noisy
Electrical relocations	February to April 2018	Mainly days, some night shifts needed	Less Noisy
Telstra relocations	February to April 2018	Mainly days, some night shifts needed	Less Noisy
Optus and NBN relocations	February to April 2018	Mainly days, some night shifts needed	Less Noisy
Jemena relocations	February to April 2018	Mainly days, some night shifts needed	Less Noisy

Building the new road pavement and traffic signals	March to June 2018	Day and night Shifts	Noisier activities
Improvements open to traffic	July 2018		
Building the new median kerb and road furnishing including landscaping and footpaths	July and Aug 18	Mainly Night shift	Less Noisy

What is construction noise?

Most construction noise is typically caused by open-air construction activities and vehicles. Noise impacts depend on the source of the noise, the proximity to the receiver and the existing levels of background noise at the property.

Additionally, construction noise changes with different construction activities and as work progresses.

During the project we will be using equipment including, but not limited to:

- day work: excavators, vacuum trucks, bobcats, jackhammers, tipping trucks, concrete trucks, delivery vehicles, rollers
- night work before midnight: excavators, jackhammers, vacuum trucks, bobcats, concrete saws, rollers, concrete removers, lighting towers
- night work after midnight: asphalt pavers, vacuum trucks, bob cats, excavators, road profiling machines, tipping trucks, rollers, trailers and trucks, bobcats, lighting towers.

It's important to note that people may have varying reactions and sensitivities to noise.

What do you mean when you say X decibels above background?

Decibel is the unit we use to measure noise. When measuring construction noise, we start by monitoring the existing noise to understand what the normal noise levels are for an area. This is referred to as 'background noise levels'. We do this for daytime, evening and night time periods as each of those times typically have different background noise levels.

We then consider the decibel levels of individual and groups of machinery being used in order to determine what the noise increase will be due to the project work. Given that the machines being used for a construction project are generally noisier than cars, traffic or other noise sources, the construction noise typically exceeds the background noise levels.

How much the construction noise exceeds the background noise level determines the level of construction noise you hear and the annoyance you may experience. A noise increase of around 10 decibels at your house will usually be noticeable, a 20 decibel increase will be clearly audible and a greater than 20 or 30 decibel increase will be moderately to highly intrusive..

The noise impact from our work and your eligibility for relocation will be determined by the level of noise above the background noise (decibels above background) your residence is predicted to experience. See below for more information about relocations.

For an understanding of construction noise please ask the project team for a copy of the 'Construction Noise' infographic.

What will I be seeing and hearing?

The things you will see and hear will depend on where you live. Typically, you will see workers:

- digging up the road and footpath to move services

- removing waste from the site
- building the road.

What do you consider ‘noisy' and ‘less noisy’ work?

Noisy work is work considered to have high noise levels and potentially annoying aspects, including high or low frequencies (such as a saw-cutter or circular saw), tonal noises or repetitive noises (such as jack-hammering).
Less noisy work is generally considered to have lower noise levels, a consistent noise source (such as a generator or lighting tower), or equipment that produces similar noise to that of the surrounding noise environment (such as cars or trucks). You may still be able to hear this work, however we try to carry out less noisy work after 12am to minimise sleep disturbance.

How do you predict construction noise levels?

Construction noise is considered during project planning and development. We carry out noise monitoring to help us understand the existing background noise levels. We then assess these levels against the noise generated by the types of equipment we are planning to use to understand the potential impacts.

Will I hear construction work every night you are working?

Construction work will not be carried out across the entire length of the project during every night shift. Work will generally be confined to a limited area of the project each night and will often move along the project site from night to night. This will mean that the level of noise you hear may not be the same each night, depending on where the work and your house are located.

Most of the night work will be around the major intersections of Essex Street and Blaxland Road, so there will be more night shifts around those areas than along the rest of the project.

Why does the work need to be completed using such an intensive schedule?

The road upgrade will improve traffic flow and tackle congestion around Epping Town Centre.

Completing work at night will minimise traffic disruption and enable us to complete the project before the Epping to Chatswood rail line is upgraded to Sydney Metro standards in late 2018. While the rail line is being upgraded, buses will replace trains for around seven months as part of the Temporary Transport Plan.

What mitigation measures are in place to reduce noise at my house?

Roads and Maritime is exploring a number of options to mitigate noise on this project. These include:

- installing temporary noise barriers on the construction fencing
- using lighting towers that are powered by solar power, rather than generators
- using smaller or less noisy machinery whenever possible.

Relocation

Am I eligible for relocation?

Our noise monitoring has determined that relocation is may be warranted for homes within the area indicated in the map below:

- offer of permanent relocation will be for people predicted to experience a greater than 30 decibel noise may be available
- week by week offers of relocation (based on modelling of forecast activities) for people predicted to experience an increase between 20 and 30 decibels may be available.

If we are speaking to you, it is likely that you are eligible for relocation. Please contact DM Roads' Communication and Stakeholder Engagement team on 1800 332 660 for more information.

How do you determine who is offered relocation?

Offers of relocation are made based on expected noise impacts to residents, which is determined using noise modelling software. Noise impacts can differ from property to property, depending on the closeness to the source, the type of work, if you can see the work, or if there is a barrier or structure between you and the work. The noise modelling software factors all of this in to the predicted noise impacts.

I am eligible for relocation, but it is unrealistic for me to move. What can you do for me?

If you would prefer not to move but are impacted by noise from the work, please contact the DM Roads Communication and Stakeholder Engagement team on 1800 332 660. We will arrange to visit your property and investigate whether any temporary onsite noise reduction options can be put in place.

Will I still be eligible for relocation later if I don't accept it now?

Yes, the offer for relocation will remain open while this phase of work is ongoing. Please contact the DM Roads Communication and Stakeholder Engagement team on 1800 332 660 to let us know if you would like to be relocated. We will do our best to find suitable accommodation for you as quickly as possible, however please be aware that we are unlikely to be able to relocate you immediately.

Can my pets be relocated with me?

If you have a pet, please let the DM Roads Communication and Stakeholder Engagement team know when they approach you to discuss relocation. We will do our best to arrange for relocation to a pet friendly property.

Where would I be relocated to?

A number of relocation venues are available to you in serviced apartments around Sydney. Please speak to the project team about the best option for you.

I live in a house; will you relocate me to another house?

Relocation is being offered in serviced apartments. We can offer access to one, two and three bedroom apartments in various locations across Sydney.

Will the relocation you offer include a kitchen and laundry?

Yes, the proposed relocation would include a kitchen or kitchenette and laundry.

We just moved in. Why weren't we told about this before we moved?

Work on Project 2 started in mid-2017 and has been delayed due to challenges related to utility relocation designs. Additionally, as part of the Sydney Metro Northwest rail link project, the Epping to Chatswood rail line will need to be closed for updating. The railway line will be closed for about seven months from mid-2018 with trains to be replaced with bus services. Our road upgrade work will help facilitate traffic management during this transition.

The intensive night works schedule is required to ensure that Epping Town Centre improvement works are completed on time so that traffic impacts associated with the additional bus services are minimised.

What do I do if I feel like my business will lose trade because of this work schedule?

Roads and Maritime must carefully balance the need to provide a road network that facilitates smooth traffic movements for road users while accommodating the needs of the local community.

If you believe the work has caused you financial hardship, you can make a claim by sending your contact details, details of the claim, proof of ownership, occupation and details of your claim to:

Liability Claims Team
Transport Shared Services
PO Box 6464
Silverwater, NSW 1811

Review of Environmental Factors display

How do I make a submission?

We have placed an update to the Review of Environmental Factors on display at the following locations:

Epping Library, Chambers Court (off Pembroke Street), Epping

Christian Chinese Community Service Centre, 41 Essex Street, Epping

The update is available for viewing between 8.30am and 5.00pm from Monday to Friday, and can also be viewed at:

rms.nsw.gov.au/eppingstage2.

If you would like to make a submission, it must reach us by **5pm** on **Tuesday 3 April 2018.**

Your submission should include:

- your name and address
- a statement on whether you support or object to the project
- the reasons why you support or object to the project.

Your submission should be marked DM Roads, Epping Town Centre Project 2:

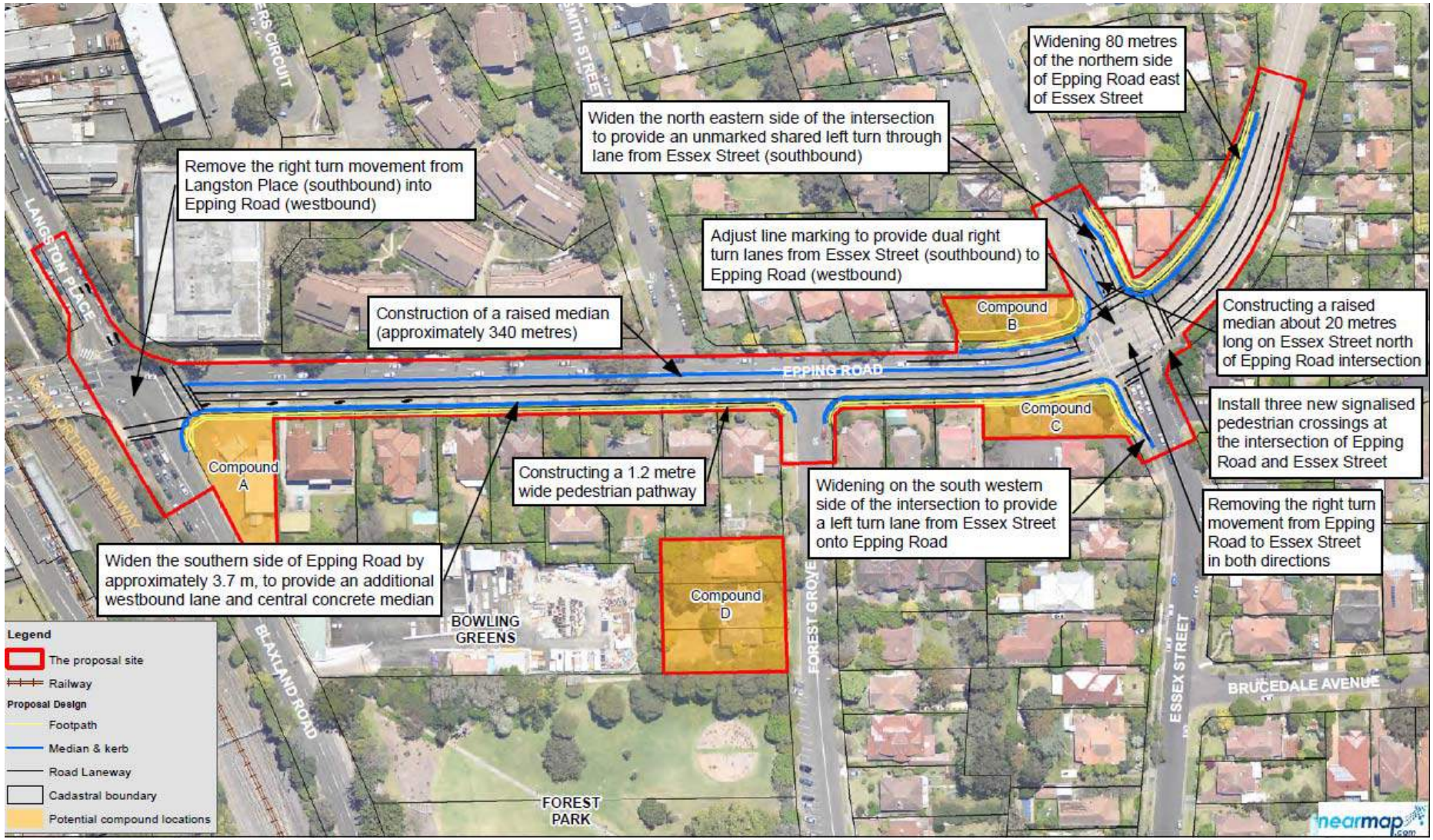
- posted to PO Box 6465, North Ryde NSW 2113
- emailed to nsw_projects@dmroads.com.au

Your submission can be as simple as a one page letter or it can be longer.

Some tips:

- remember, this consultation is solely about the work schedule, we will not consider submissions about the proposal.
- clearly identify the issue and location you want us to know about
- include relevant contact details; name, address, email, fax, telephone
- identify points you want to make
- use headings, sub-headings or main points
- state your position or view at the beginning and explain how it relates to our assessment
- provide background if it would help to explain your concern or issue
- state whether you agree, disagree or you are just stating important things that should be considered
- use one point per paragraph or dot points for each new idea or point
- use headings that highlight your point of view
- summarise the main points
- avoid long sentences.

If you need more information about writing a submission, please phone our community information line on 1800 332 660 or email nsw_projects@dmroads.com.au.


Widening 80 metres of the northern side of Epping Road east of Essex Street
Widen the north eastern side of the intersection to provide an unmarked shared left turn through lane from Essex Street (southbound)
Remove the right turn movement from Langston Place (southbound) into Epping Road (westbound)
Adjust line marking to provide dual right turn lanes from Essex Street (southbound) to Epping Road (westbound)
Construction of a raised median (approximately 340 metres)
Compound B
Constructing a raised median about 20 metres long on Essex Street north of Epping Road intersection
EPPING ROAD
Compound C
Install three new signalised pedestrian crossings at the intersection of Epping Road and Essex Street
Compound A
Constructing a 1.2 metre wide pedestrian pathway
Widening on the south western side of the intersection to provide a left turn lane from Essex Street onto Epping Road
Removing the right turn movement from Epping Road to Essex Street in both directions
Widen the southern side of Epping Road by approximately 3.7 m, to provide an additional westbound lane and central concrete median
Compound D
BOWLING GREENS
FOREST GROVE
ESSEX STREET
BRUCEDALE AVENUE
BLAXLAND ROAD
FOREST PARK
LANGSTON PLACE
Legend
The proposal site
Railway
Proposal Design
Footpath
Median & kerb
Road Laneway
Cadastral boundary
Potential compound locations
nearmap

Appendix F

Council Road Improvements

Supporting text for Local Road Improvements Maps (at D05725714 & D05725987)

- **Rosebank Avenue**: (1) Extend Rosebank Avenue north to connect with Rosen Street. (2) Widen Rosebank Avenue bridge.

- **Kent Street/Cliff Rd intersection** – install a round-a-bout.

- **Local road through site at 240-244 Rosebank Avenue** – create a new local road through this site connecting Ray Road to Beecroft Road. Left in and left out only where it connects with Beecroft Road. (**Note:** this is consistent with the 'Public Domain' section of the EPR Discussion Paper).

- **Ray Road/Rawson Street intersection** – install barrier on Carlingford Road to restrict movements to left-in/left-out of both Ray Road and Rawson Street.

- **DCP Road** – new road from Rawson Street connecting at Carlingford Road opposite Cliff Road.

- **Cliff Road/DCP road intersection** – (1) Left in/Left out from Cliff Road/DCP road. (2) Straight ahead movement from Cliff Road/DCP road. (3) Right out from Cliff Road/DCP road. (4) Right in to Cliff Road/DCP road (outside of peak, only). (5) Pedestrian bridge on western side of Cliff Road/DCP road intersection.

- **Carlingford Road/Beecroft Road intersection** – Widening of Beecroft Road to 3 lanes. If not, then tidal flow: 3 lanes northbound at peak pm.

- **Widen rail bridge, westbound lane** – westbound lane addition.

- **Epping Road** – Set a Level of Service for motorists exiting from the east side of Epping, north of Epping Road so that motorists do not wait for more than 2 cycles of the traffic signals to get onto, or south of, Epping Road. RMS would need to manage the traffic signals to ensure that this level of service is met.

On account of the first Ward Councillor briefing session held on 17 October, the following sub-option shall also be tested (read in conjunction with D05725987):

- **One way south-bound down Rawson Street** between Carlingford Road and Bridge Street.

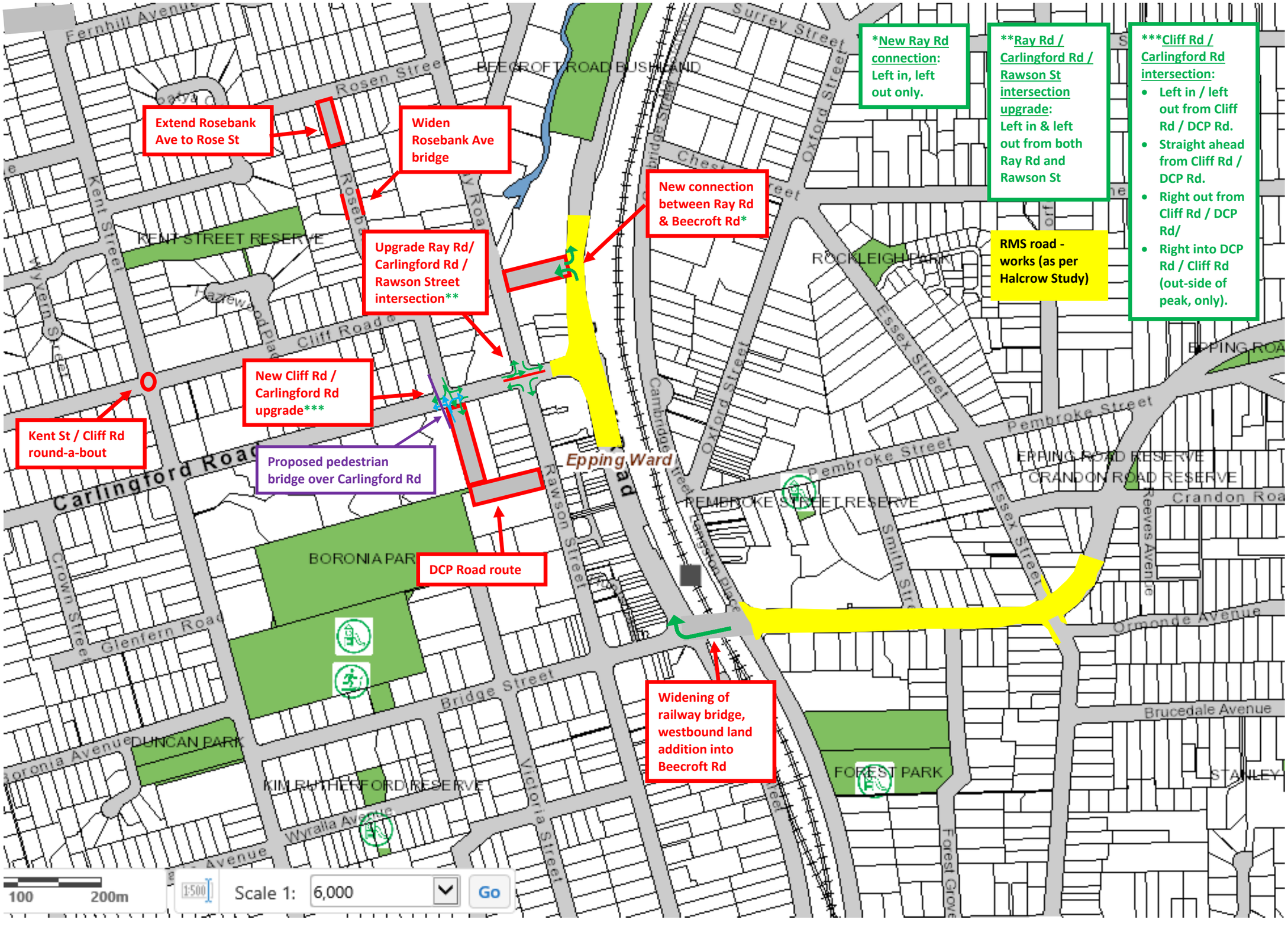
- Replace DCP Road Route with New road that connects through Council car park site with Victoria Street cul-de-sac.

- **Signalisation of Kent/Carlingford Road intersection**.

*

LOCAL ROAD IMPROVEMENTS – EPPING TOWN CENTRE TRAFFIC STUDY (Map 1 of 2)

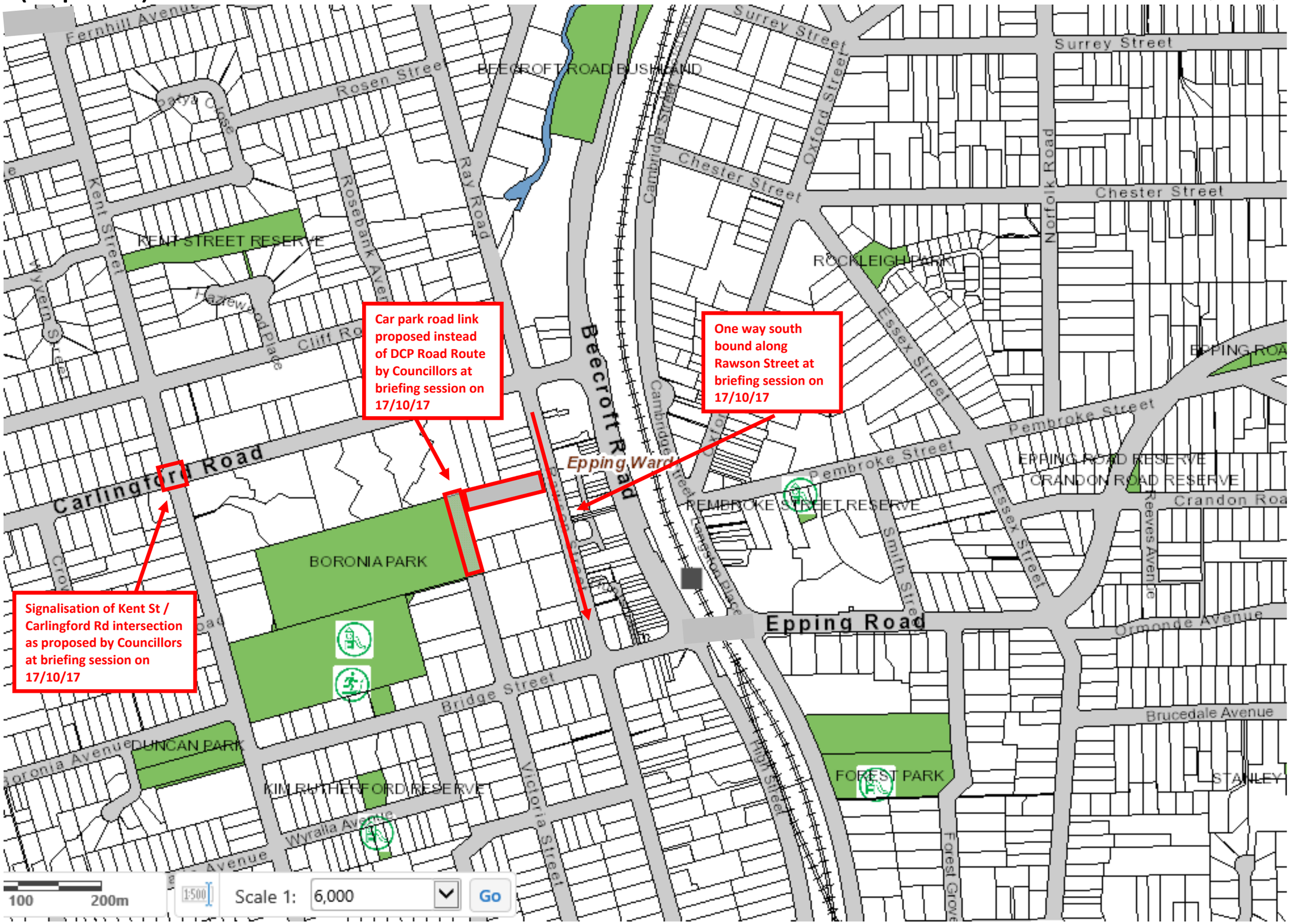
(D05725714)



Note: this must be read in conjunction with supporting text at D05624869, and Summary Table at D05582338 and Maps 2 of 2 at D05725987.

LOCAL ROAD IMPROVEMENTS – EPPING TOWN CENTRE TRAFFIC STUDY - Road upgrades as proposed by Councillors) (Map 2 of 2)

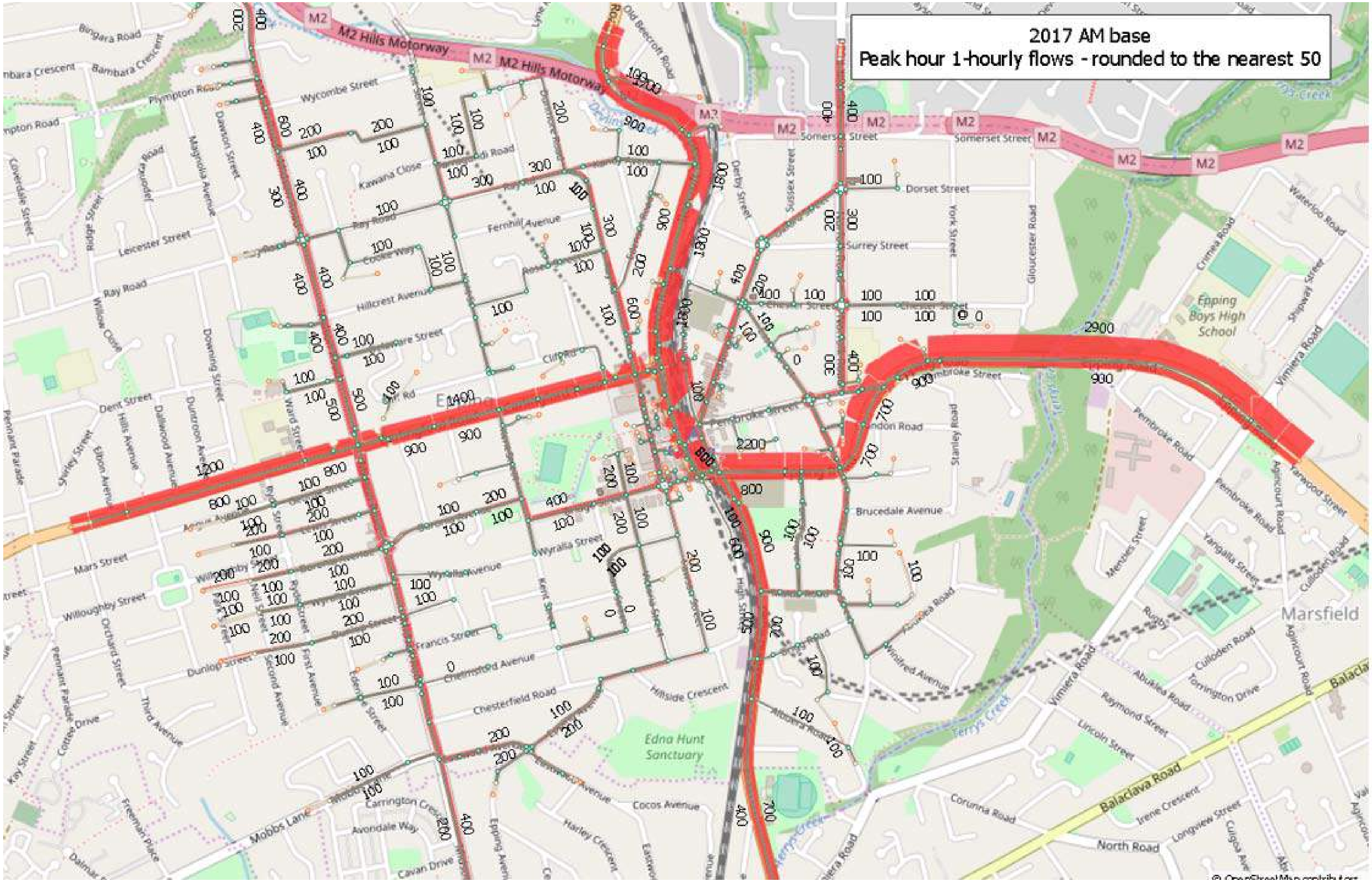
(D05725987)



Note: this must be read in conjunction with supporting text at D05624869, and Summary Table at D05582338 and Maps 1 of 2 at D05725714.

Appendix G

2017 Network Volumes



2017 AM base
Peak hour 1-hourly flows - rounded to the nearest 50
M2 Hills Motorway
M2
Epping Boys High School
Marsfield
Edna Hunt Sanctuary
Terrys Creek
Balaclava Road
Vimiera Road
Pembroke Street
Somerset Street
Dorset Street
Surrey Street
Chester Street
Brucedale Avenue
Mobbs Lane
Chesterfield Road
Chelmsford Avenue
Wyralla Avenue
Francis Street
Kent Street
Hillside Crescent
Corunna Road
North Road
Bingara Road
Bambara Crescent
Plympton Road
Wycombe Street
Kawana Close
Ray Road
Fernhill Avenue
Hillcrest Avenue
Cooke Way
Leicester Street
Dent Street
Mars Street
Willoughby Street
Dunlop Street
Carrington Crescent
Avondale Way
Cavan Drive
Cocos Avenue
Harley Crescent
Derby Street
Sussex Street
York Street
Gloucester Road
Stanley Road
Crimea Road
Waterloo Road
Shipway Street
Pembroke Road
Agincourt Road
Yarwood Street
Menzies Street
Yangalla Street
Culloden Road
Torrington Drive
Abuklea Road
Raymond Street
Lincoln Street
Irene Crescent
Longview Street
Rugby
Winifred Avenue
Albuera Road
Old Beecroft Road
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2017 PM base
Peak hour 1-hourly flows - rounded to the nearest 50
M2 Hills Motorway
Somerset Street
Dorset Street
Surrey Street
Brucedale Avenue
Epping Boys High School
Marsfield
Edna Hunt Sanctuary
Balaclava Road
North Road
Mobbs Lane
Chesterfield Road
Wyralla Avenue
Cliff Rd
Fernhill Avenue
Cooke Way
Kawana Close
Mars Street
Willoughby Street
Dent Street
Ray Road
Leicester Street
Pembroke Road
Abukiea Road
Albuera Road
Raymond Street
Lincoln Street
Irene Crescent
Corunna Road
Cocos Avenue
Harley Crescent
Avondale Way
Carrington Crescent
Cavan Drive
Hillside Crescent
Francis Street
Dunlop Street
Cottrew Drive
Pennant Parade
Shirley Street
Ebor Avenue
Hills Avenue
Dalwood Avenue
Duntroon Avenue
Downing Street
Willow Close
Ridge Street
Coverdale Street
Magnolia Avenue
Dawson Street
Plympton Road
Rambara Crescent
Bingara Road
Gloucester Road
Sussex Street
York Street
Derby Street
Johnson Road
Menzies Street
Yangalla Street
Culloden Road
Torrington Drive
Windred Avenue
Vimiera Road
Waterloo Road
Crimea Road
Sherway Street
Agincourt Road
Tarwood Street
Longwee Street
Kay Street
Freemans Place
Dalmar Place
Epping Avenue
Easdale Street
Ryde Street
Second Avenue
First Avenue
Third Avenue
Orchard Street
Essex Street
Ashley Road
Terrys Creek
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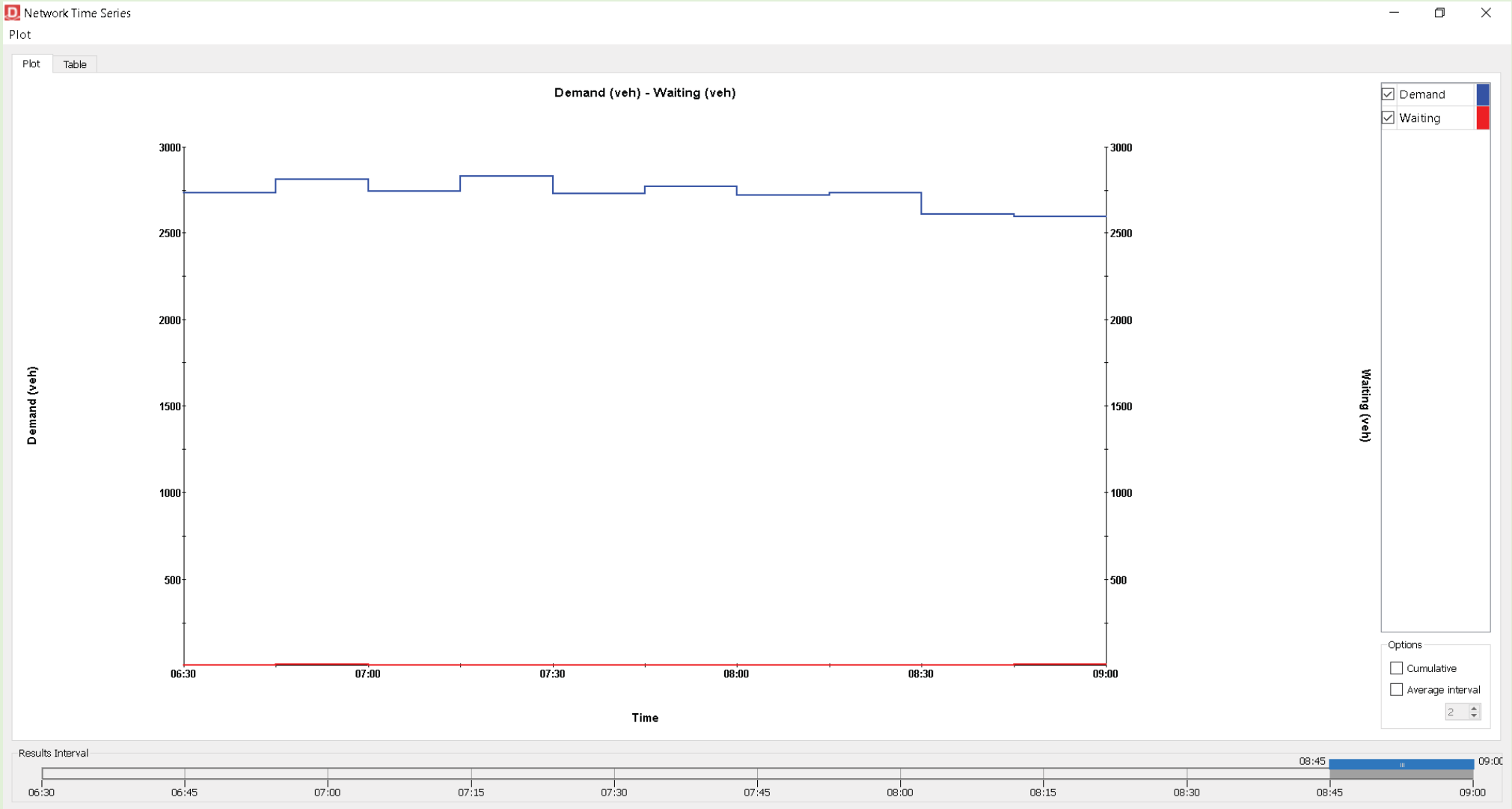
Network Time Series
Plot
Plot
Table
Demand (veh) - Waiting (veh)
Demand (veh)
Waiting (veh)
Time
3000
2500
2000
1500
1000
500
06:30
07:00
07:30
08:00
08:30
09:00
Demand
Waiting
Options
Cumulative
Average interval
2
Results Interval
08:45
09:00
06:30
06:45
07:00
07:15
07:30
07:45
08:00
08:15
08:30
08:45
09:00

2017 am

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Travelling		765	892	978	997	1086	1155	1039	980	899	851
Density		4	7	8	8	9	9	9	8	7	7
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VHT-Virtual		0	0	0	0	0	0	0	1	1	0
VHD		43	101	124	126	155	166	157	147	119	101
VHD-Total		43	101	124	127	156	167	157	147	120	101
VKT		5,161	6,225	6,373	6,644	6,341	6,387	6,694	6,519	6,229	6,105
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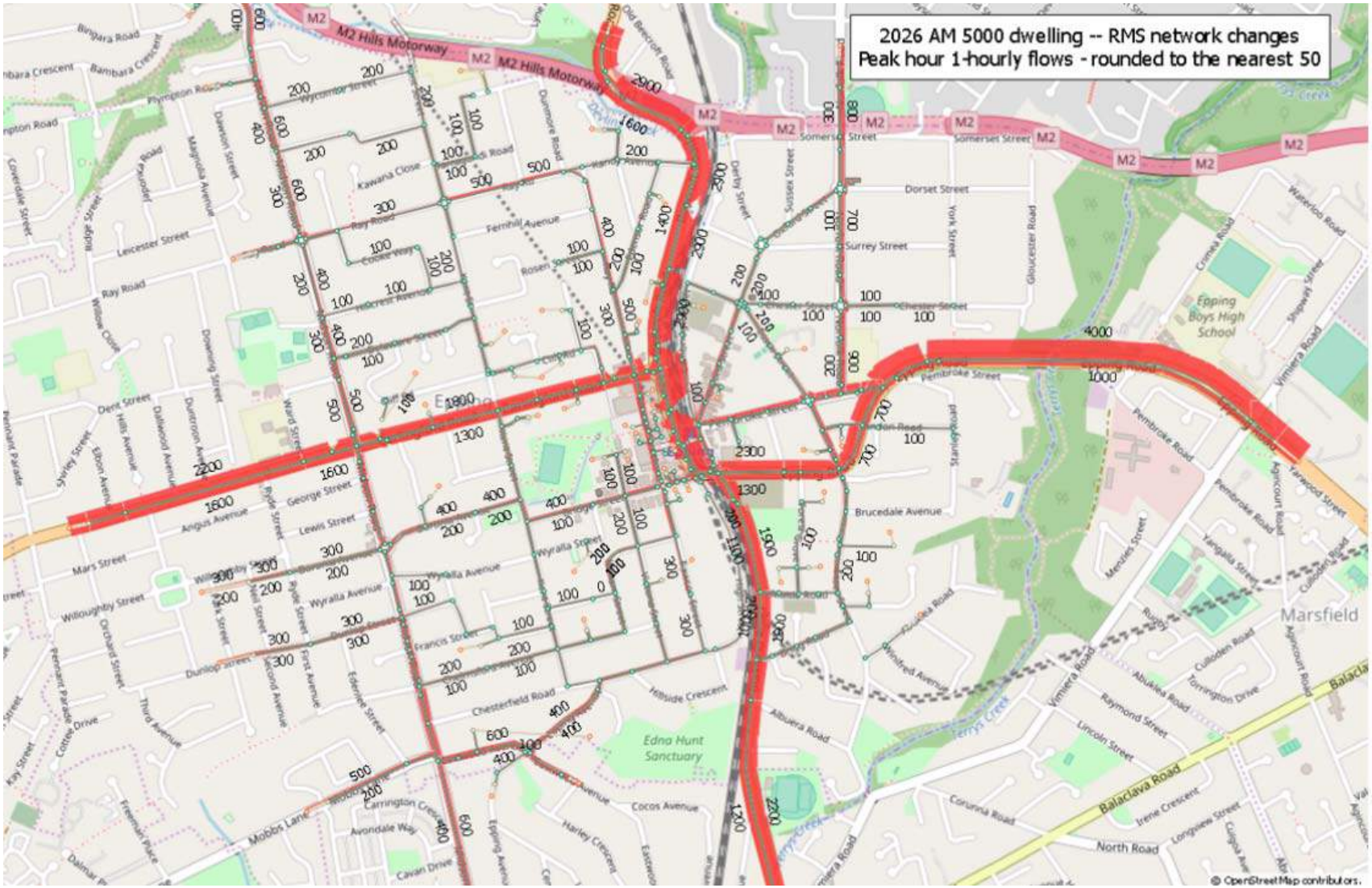
2017 am

Appendix H

2026 Network Volumes


2026 AM 5000 dwelling -- RMS network changes
Peak hour 1-hourly flows - rounded to the nearest 50
M2 Hills Motorway
Somerset Street
Dorset Street
Surrey Street
Chester Street
Pembroke Street
Brucedale Avenue
Epping Boys High School
Edna Hunt Sanctuary
Marsfield
Balaclava Road
North Road
Ray Road
Wyralla Avenue
Chesterfield Road
Mobbs Lane
Cocos Avenue
Fernhill Avenue
Dunmore Road
Lewis Street
George Street
Angus Avenue
Willoughby Street
Mars Street
Dunlop Street
Francis Street
Hillside Crescent
Allsera Road
Coruna Road
Lincoln Street
Raymond Street
Irene Crescent
Longview Street
Torrington Drive
Culloden Road
Abukea Road
Vimiera Road
Pembroke Road
Agincourt Road
Yarwood Street
Yangalla Street
Menzies Street
Stanley Street
Gloucester Road
York Street
Sussex Street
Derby Street
Waterloo Road
Shepherd Street
Crimea Road
Kawana Close
Cocos Way
Rosen Street
Willow Close
Leicester Street
Ridge Street
Dent Street
Shirley Street
Hills Avenue
Dalwood Avenue
Dunrossil Avenue
Downing Street
Ward Street
Pyle Street
Neil Street
Orchard Street
First Avenue
Second Avenue
Third Avenue
Edenlee Street
Cottee Drive
Kay Street
Carrington Crescent
Avondale Way
Cawan Drive
Epping Avenue
Harley Crescent
Eastwood
Magnolia Avenue
Duveron Street
Bungara Road
Bambara Crescent
Plymptom Road
Coverdale Street
Pennant Parade
Freemans Place
Dalmar Place
Terrys Creek
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2026 PM 5000 dwelling -- RMS network changes
Peak hour 1-hourly flows - rounded to the nearest 50
M2 Hills Motorway
Somerset Street
Dorset Street
Surrey Street
Chester Street
Brucedale Avenue
George Street
Lewis Street
Wyralla Avenue
Francis Street
Chesterfield Road
Hillside Crescent
Albuera Road
Edna Hunt Sanctuary
Cocos Avenue
Mobbs Lane
Carrington Crescent
Avondale Way
Cavan Drive
Harley Crescent
Epping Boys High School
Pembroke Road
Marsfield
Balaclava Road
North Road
Coruneia Road
Irene Crescent
Longview Street
Raymond Street
Lincoln Street
Torrington Drive
Culloden Road
Abukhea Road
Winifred Avenue
Vimiera Road
Yangalla Street
Menzies Street
Arnwood Street
Waterloo Road
Shipwell Street
Crimea Road
Gloucester Road
York Street
Sussex Street
Derby Street
Somers Street
Old Beecroft Road
Dunmore Road
Kawana Close
Ray Road
Fernhill Avenue
Hillcrest Avenue
Cooke Way
Leicester Street
Ridge Street
Dawson Street
Magnolia Avenue
Wycombe Street
Bingara Road
Bambara Crescent
Plympton Road
Coverdale Street
Willow Close
Downing Street
Dent Street
Hills Avenue
Dalwood Avenue
Duntroon Avenue
Ward Street
Shirley Street
Gibbon Avenue
Pennant Parade
Mars Street
Willoughby Street
Orchard Street
Ryde Street
Neil Street
Dunlop Street
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Third Avenue
Edenvale Street
Pennant Parade Drive
Cottee Drive
Freemans Place
Dalmar Place
Angus Avenue
Wyralla Stop
Ryan Avenue
Rosen Street
Clifton Road
Stanley Road
Menzies Street
Rugby
Vimiera Road
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Lincoln Street
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Cumpla Ave
Agincourt
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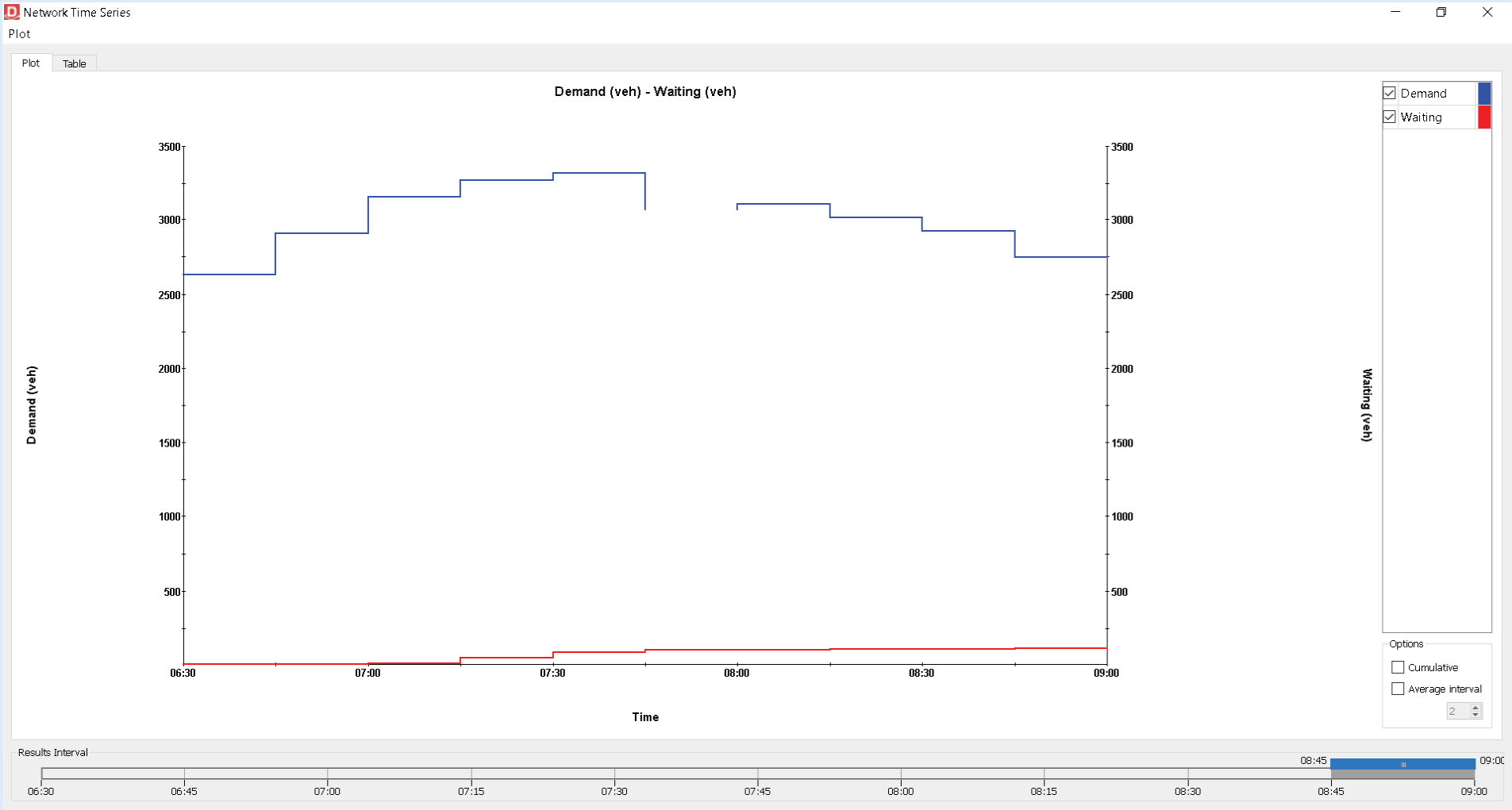
Network Time Series
Plot
Plot
Table
Demand (veh) - Waiting (veh)
Demand (veh)
Waiting (veh)
Time
3500
3000
2500
2000
1500
1000
500
06:30
07:00
07:30
08:00
08:30
09:00
Demand
Waiting
Options
Cumulative
Average interval
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Results Interval
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09:00
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08:45
09:00

2026 am

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In	Count	2,634	2,906	3,155	3,239	3,280	3,053	3,112	3,010	2,927	2,744
Out	Count	2,128	2,690	3,209	3,104	3,371	3,164	3,111	2,981	2,933	2,744
Waiting		0	1	8	43	83	99	100	105	102	109
Travelling		506	722	668	803	712	601	602	631	625	625
Density		3.4	4.8	5.8	5.9	6.0	5.0	5.0	5.0	5.0	4.9
VHT		109	152	183	186	190	159	159	157	159	154
VHT-Total		109	152	183	192	206	182	183	183	185	178
VHT-Virtual		0	0	1	6	16	23	24	26	26	25
VHD		12	34	48	50	44	28	29	31	35	39
VHD-Total		12	34	48	56	60	51	54	56	61	63
VKT		5,428	6,606	7,527	7,600	8,143	7,254	7,151	6,962	6,889	6,333
Speed		49.9	43.5	41.2	40.8	42.8	45.7	44.9	44.4	43.3	41.3

2026 am

Appendix I

2036 Network Volumes


2036 AM 10000 dwelling -- RMS + Council network changes
Peak hour 1-hourly flows - rounded to the nearest 50
M2 Hills Motorway
Edna Hunt Sanctuary
Epping Boys High School
Marsfield
Balaclava Road
North Road
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2036 PM 10000 dwelling -- RMS + Council network changes
Peak hour 1-hourly flows - rounded to the nearest 50
M2 Hills Motorway
Somerset Street
Dorset Street
Surrey Street
Brucedale Avenue
Epping Boys High School
Marsfield
Edna Hunt Sanctuary
Balaclava Road
North Road
Mobbs Lane
Carrington Creek
Terrys Creek
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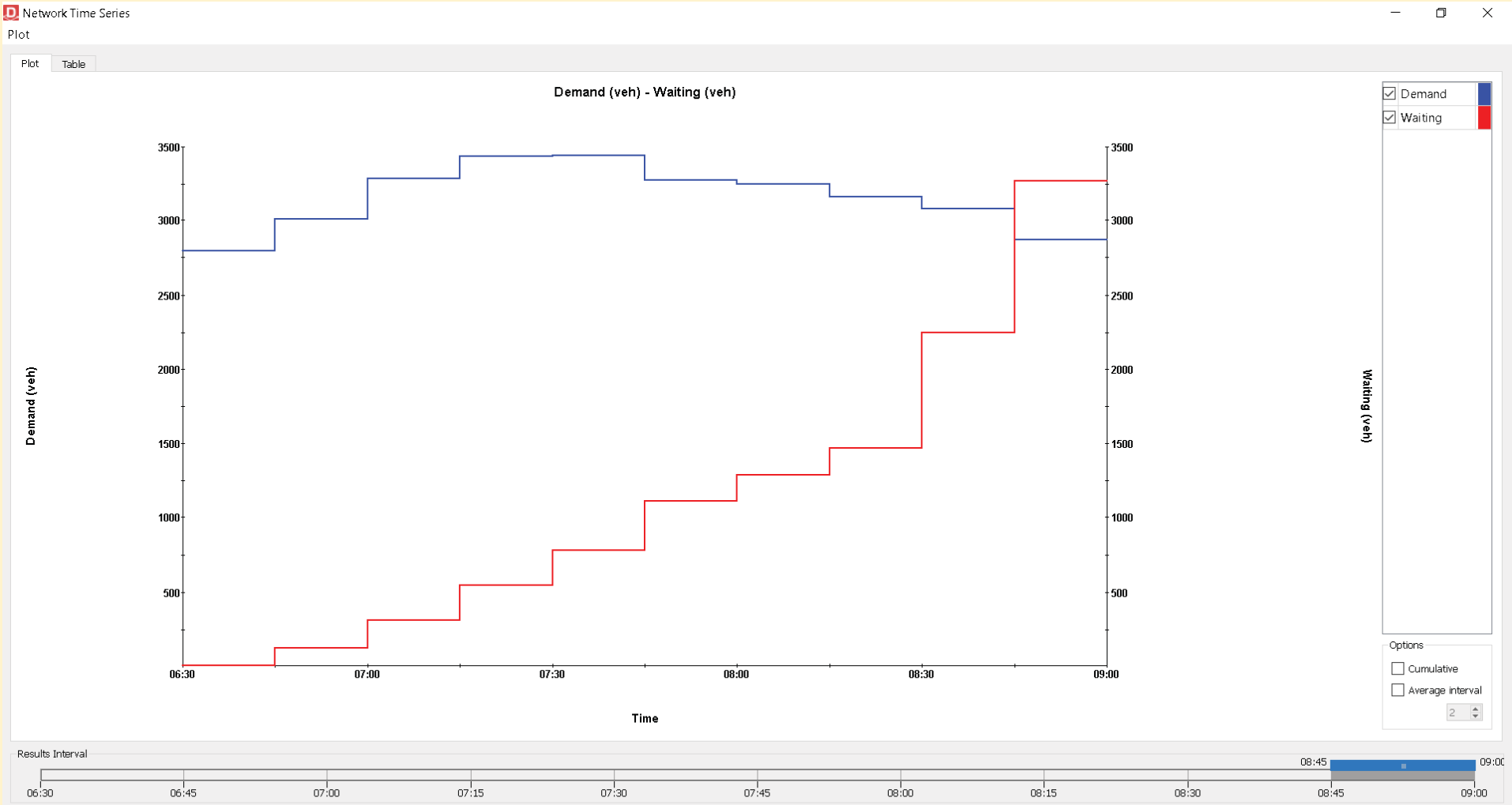
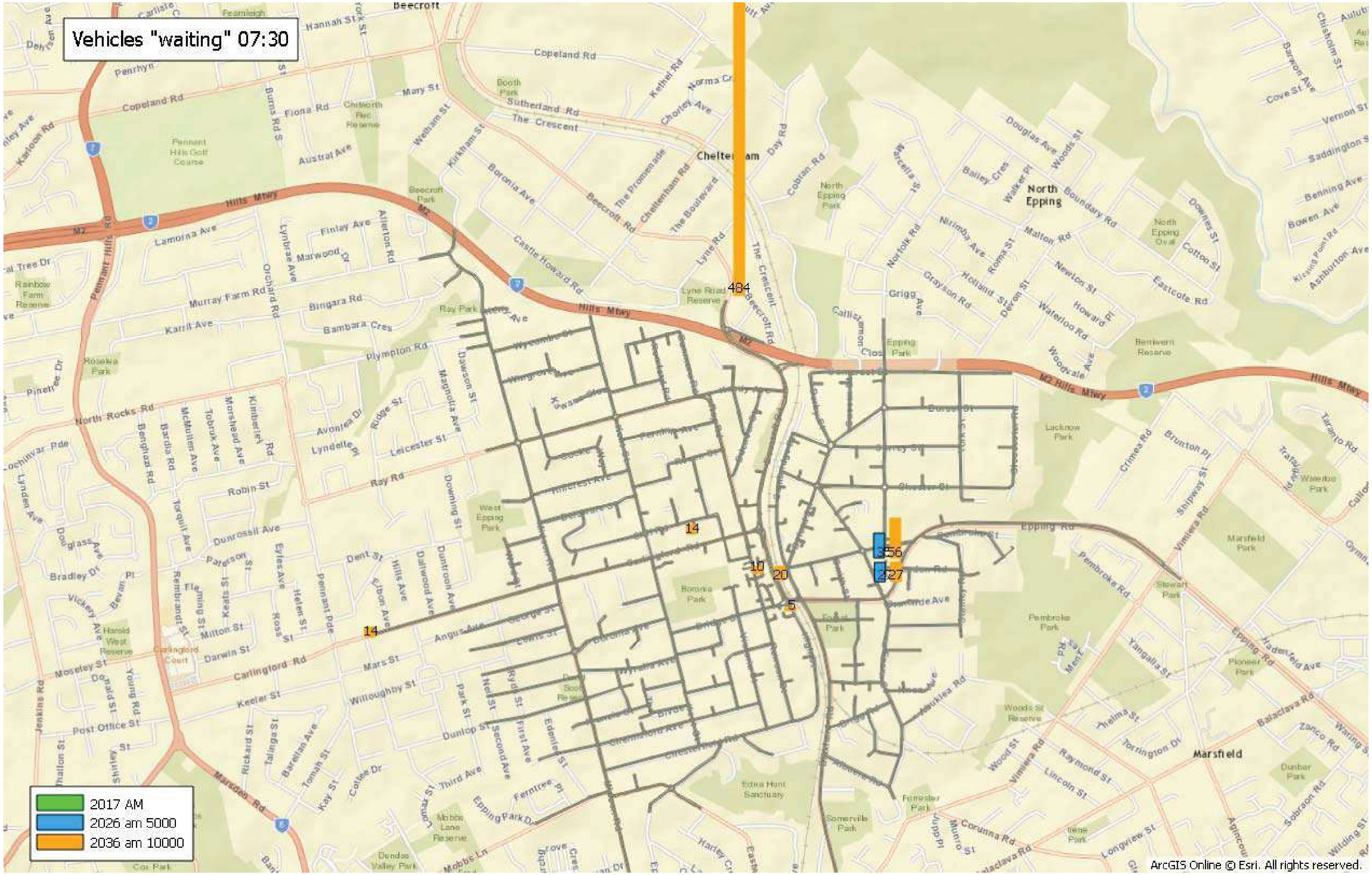

Network Time Series
Plot
Plot
Table
Demand (veh) - Waiting (veh)
Demand
Waiting
3500
3000
2500
2000
1500
1000
500
Demand (veh)
Waiting (veh)
06:30
07:00
07:30
08:00
08:30
09:00
Time
Options
Cumulative
Average interval
2
Results Interval
08:45
09:00
06:30
06:45
07:00
07:15
07:30
07:45
08:00
08:15
08:30
08:45
09:00

2036 am

*	project:	Epping_dynameq_small									
*	scenario:	net_2036_RMS_Council									
*	DTA:	am_2036_10000									
*	vehicle	classes:	Default								
*	CREATED	Tue	24	Apr	4:15:26	2018					
*	result	6:30:00	6:45:00	7:00:00	7:15:00	7:30:00	7:45:00	8:00:00	8:15:00	8:30:00	8:45:00
Demand		2,796	3,008	3,292	3,439	3,442	3,279	3,252	3,171	3,091	2,873
In	Count	2,795	2,889	3,094	3,206	3,209	2,953	3,071	2,989	2,314	1,850
Out	Count	1,908	2,510	2,801	2,824	2,764	2,657	2,828	2,554	1,429	1,373
Waiting		1	120	318	551	784	1,110	1,291	1,473	2,250	3,273
Travelling		887	1,266	1,559	1,941	2,386	2,682	2,925	3,360	4,245	4,722
Density		4.8	8.6	11.5	13.4	15.4	19.6	20.9	21.1	18.4	27.0
VHT		152	273	364	427	489	624	665	671	584	858
VHT-Total		152	281	419	534	647	873	964	1,019	1,029	1,552
VHT-Virtual		0	9	55	107	158	249	299	348	445	694
VHD		62	165	244	302	370	503	542	556	521	801
VHD-Total		62	173	299	409	528	752	840	904	966	1,495
VKT		4,996	5,973	6,589	6,854	6,586	6,734	6,793	6,350	3,374	3,090
Speed		32.9	21.9	18.1	16.1	13.5	10.8	10.2	9.5	5.8	3.6

2036 am



Vehicles "waiting" 07:30
484
356
227
14
10
20
5
14
2017 AM
2026 am 5000
2036 am 10000
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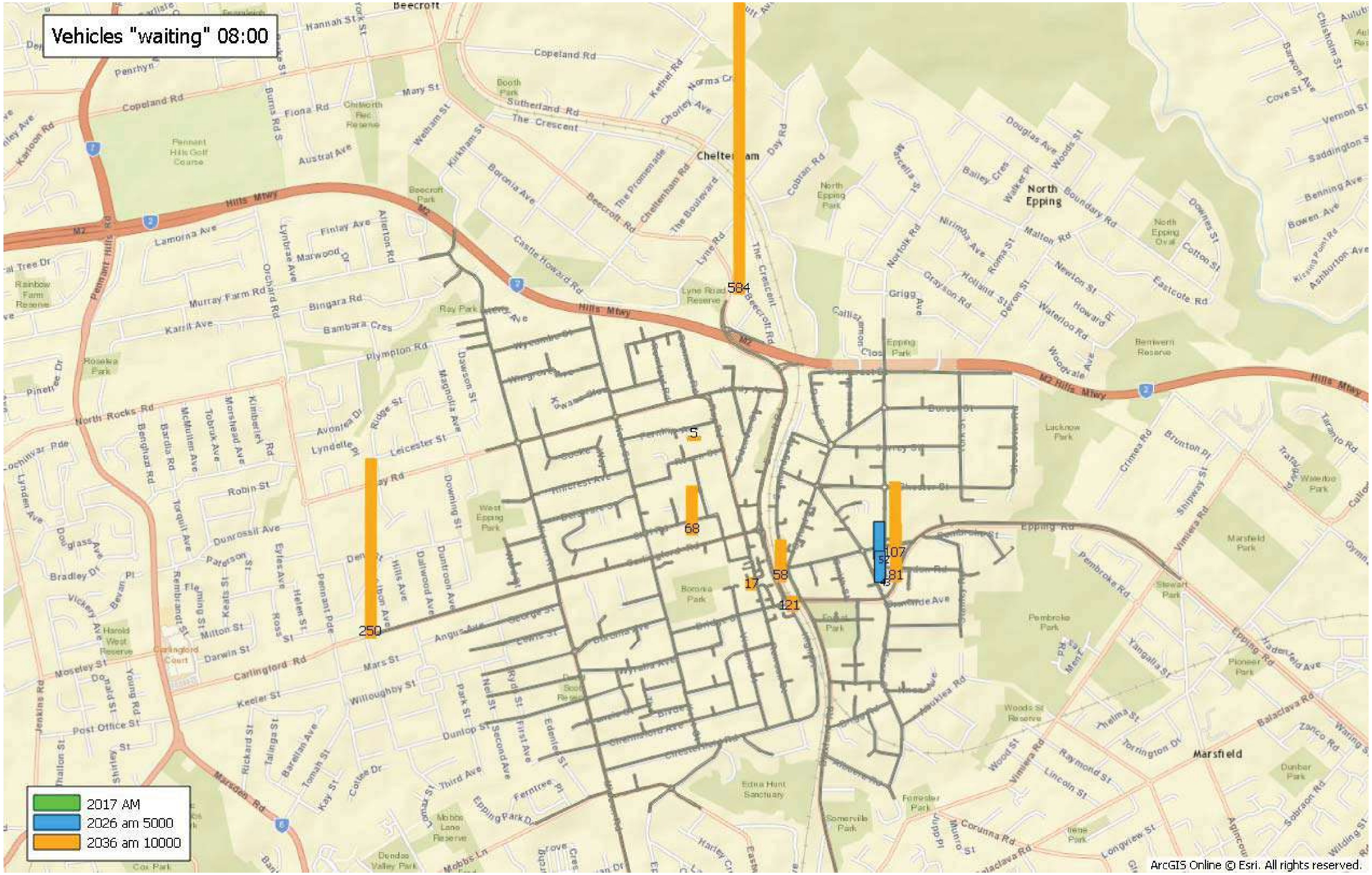

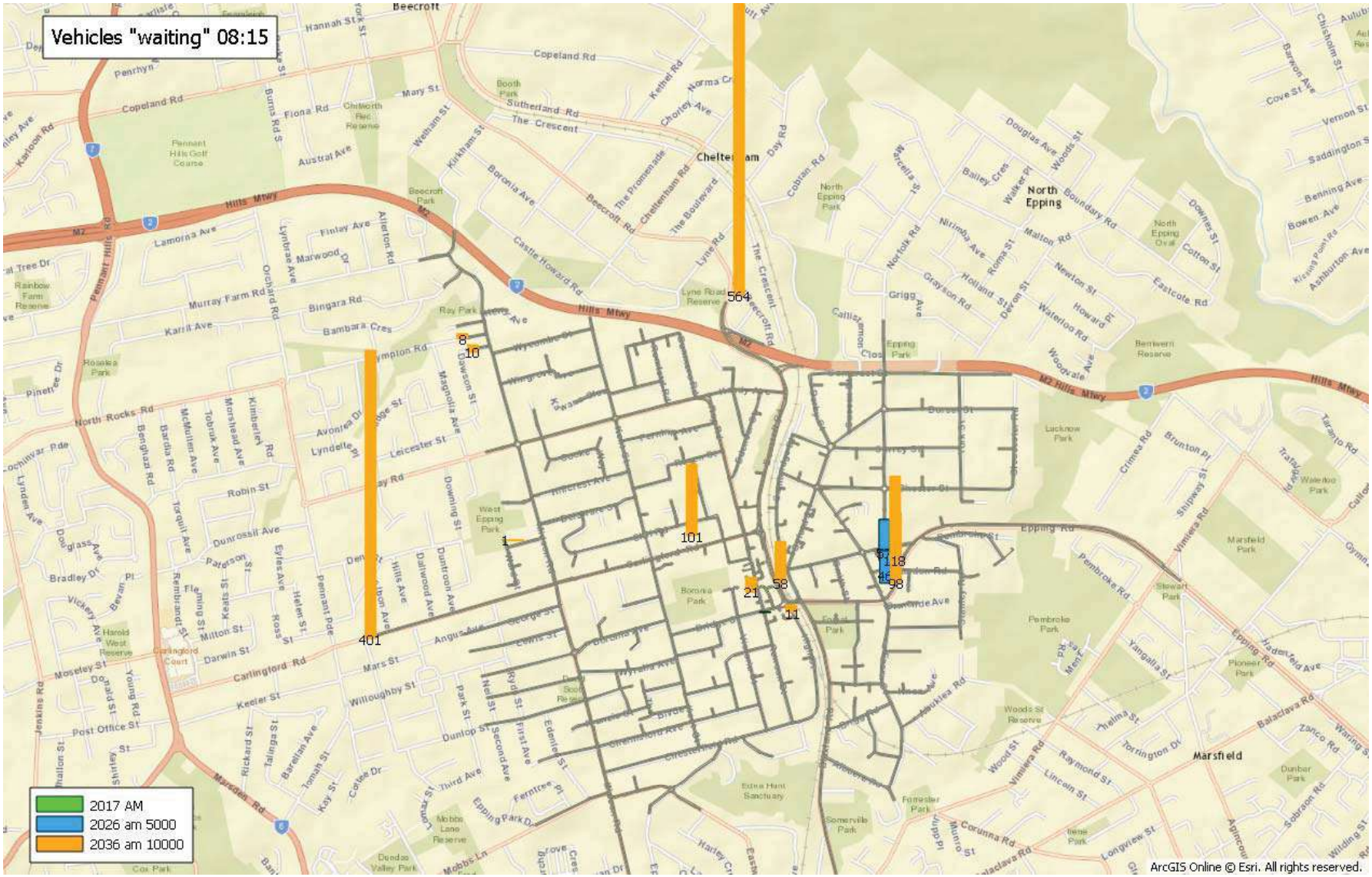
Vehicles "waiting" 08:15
2017 AM
2026 am 5000
2036 am 10000
564
8
10
1
101
401
21
58
11
18
98
Hills Mtwy
M2
Beecroft
Copeland Rd
Cheltenham
North Epping
Carlingford Rd
Marsfield
Pennant Hills Rd
North Rocks Rd
Epping Rd
Pembroke Rd
Castle Howard Rd
Lyne Rd
Beecroft Rd
Dunlop St
Willoughby St
Keeler St
Mars St
Angus Ave
Hills Ave
Dawson St
Magnolia Ave
Leicester St
Downing St
Dunrossil Ave
Robin St
Bingara Rd
Bambara Cres
Karrill Ave
Marwood Dr
Finlay Ave
Lamorna Ave
Orchard Rd
Murray Farm Rd
Allerton Rd
Lyndelle Pl
Avonlea Dr
Ridge St
Sympton Rd
Ray Park Ave
Wyomble Dr
Kwanda Ave
Dural St
Pennant Hills Golf Course
Rainbow Farm Reserve
Rosinka Park
Booth Park
Chilworth Rec Reserve
Beecroft Park
Lyne Road Reserve
North Epping Park
North Epping Oval
Epping Park
Bennett Reserve
Lucknow Park
Waterloo Park
Marsfield Park
Stewart Park
Pioneer Park
Dunbar Park
Somerville Park
Forrester Park
Woods St Reserve
Harold West Reserve
Darlington Court
West Epping Park
Boronia Park
Edgar Park
Pembroke Park
Pat Mein Park
Mobbs Lane Reserve
Dundas Valley Park
Cox Park
Estria Hunt Sanctuary
Tarawa Rd
Trafalgar Rd
Shipway St
Vimiera Rd
Crimea Rd
Brunton Pl
Hadenfield Ave
Balaclava Rd
Zanco Rd
Waring St
Wilding St
Sobraon Rd
Corunna Rd
Munro St
Longview St
Lincoln St
Raymond St
Torrington Dr
Thelma St
Yangalla St
Hawkhea Rd
Woodside Ave
Wyralla Ave
Ryde St
Park St
Second Ave
First Ave
Third Ave
Edenlee St
Fernlee Pl
Epping Park Dr
Mobbs Ln
Marsden Rd
Post Office St
Moseley St
Darwin St
Milton St
Paterson St
Eyles Ave
Helen St
Rose St
Pennant Pde
Hills Ave
Dalwood Ave
Dunfroon Ave
Fleming St
Rembrandt St
Keats St
Vickery Ave
Bradley Dr
Douglass Ave
Lynden Ave
Cochinwar Pde
Pinetree Dr
Tree Dr
Bevan Pl
Donald St
Young Rd
Jenkins Rd
Thallon St
Shirley St
Rickard St
Talinga St
Barellan Ave
Jonah St
Kay St
Cottee Dr
Lemnos St
Third Ave
Ferntree Pl
Epping Park Dr
Mobbs Ln
Harley Cr
Eastwood
Dundas Valley Park
Cox Park
Kathoom Rd
Burns Rd S
Fiona Rd
Austral Ave
Mary St
Wetham St
Kirkham St
Boronia Ave
Sutherland Rd
The Crescent
The Promenade
Cheltenham Rd
The Boulevard
Kethel Rd
Norma Cr
Chorley Ave
Day Rd
Cobban Rd
Callistemon Close
Douglas Ave
Woods St
Bailey Cres
Walker Pl
Marcella St
Norfolk Rd
Nirimba Ave
Roma St
Matton Rd
Grigg Ave
Grayson Rd
Holland St
Devon St
Waterloo Rd
Howard Pl
Newton St
Eastcote Rd
Cotton St
Downes St
Boundary Rd
Benning Ave
Bowen Ave
Ashburton Ave
Kiama Point Rd
Saddington St
Vernon St
Cove St
Barwon Ave
Chisholm St
Aulubu
Woodyale Ave
Hills Mtwy
M2 Hills Mtwy
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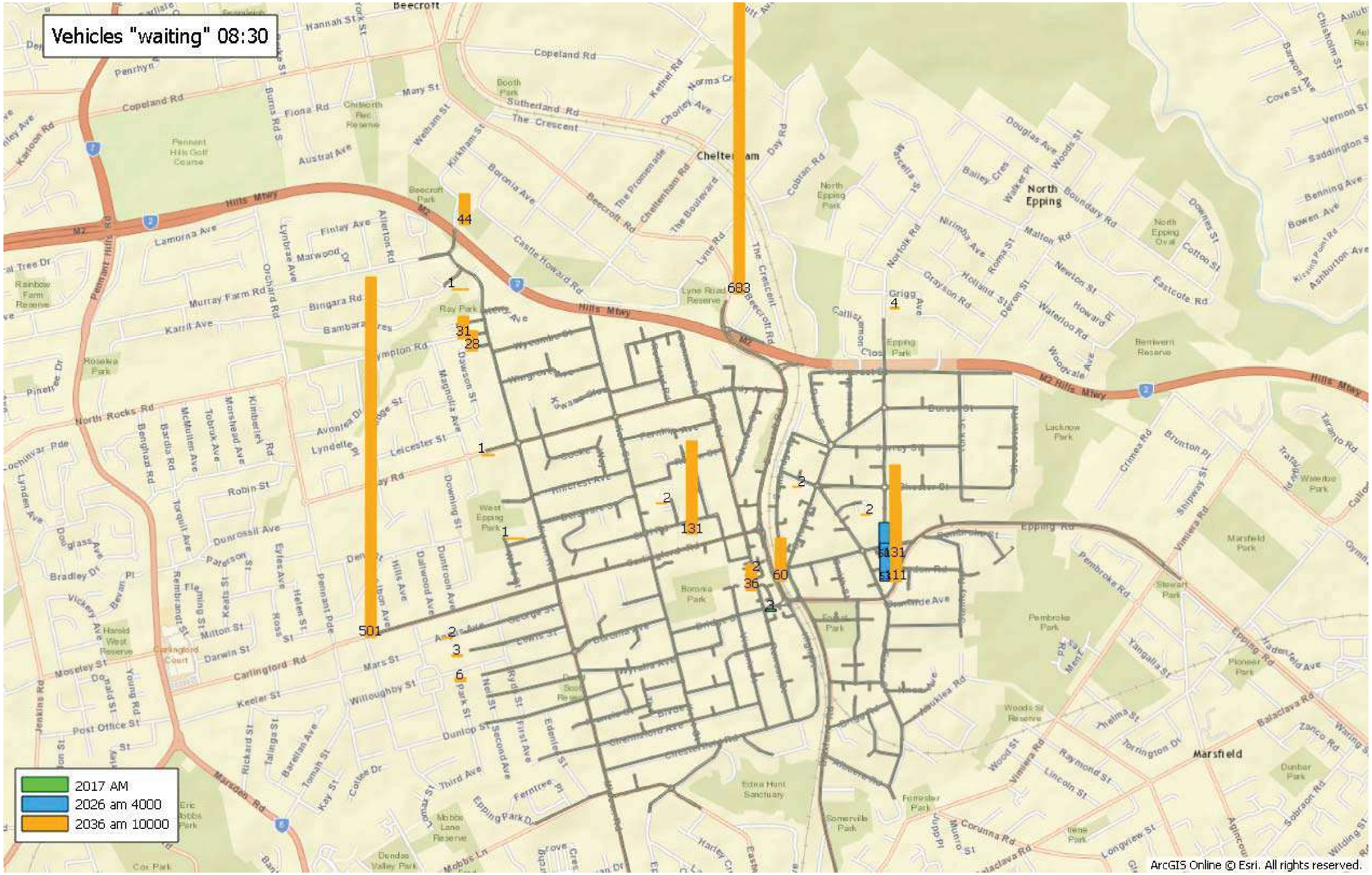

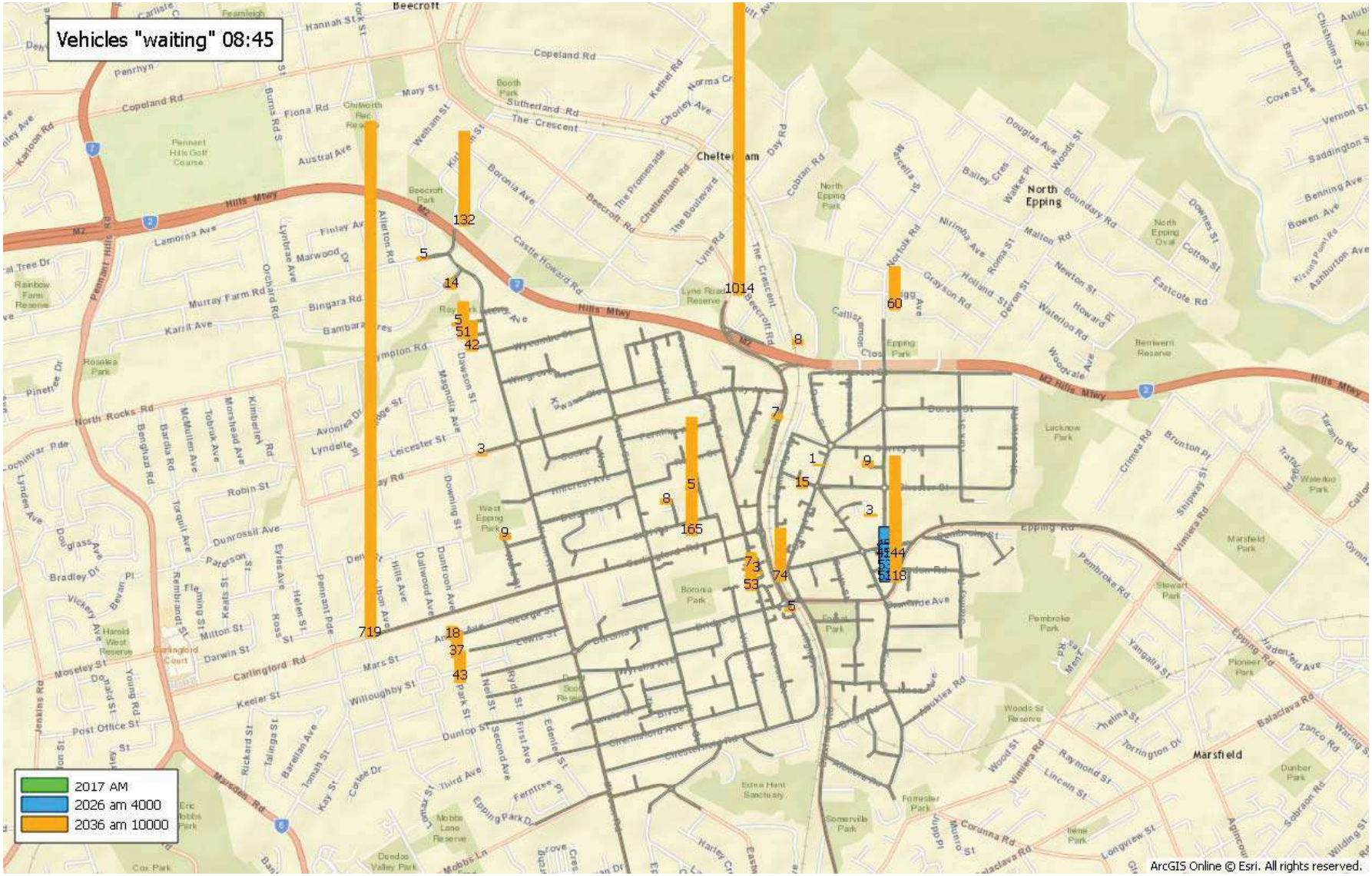
Vehicles "waiting" 08:45
2017 AM
2026 am 4000
2036 am 10000
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Appendix J

2017 SIDRA Results

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [2017_am_base_survey]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: High St													
1	L2	49	0.0	49	0.0	0.042	0.9	LOS A	0.2	1.4	0.33	0.17	49.1
Approach		49	0.0	49	0.0	0.042	0.9	NA	0.2	1.4	0.33	0.17	49.1
East: Bridge													
4	L2	85	0.0	85	0.0	0.605	0.0	LOS A	0.0	0.0	0.00	0.00	55.0
5	T1	232	0.0	232	0.0	0.605	0.0	LOS A	0.0	0.0	0.00	0.00	50.3
6	R2	1194	0.0	1194	0.0	0.605	0.1	LOS A	0.0	0.0	0.00	0.00	51.9
Approach		1511	0.0	1511	0.0	0.605	0.1	NA	0.0	0.0	0.00	0.00	52.2
North: Beecroft Rd													
7	L2	2912	0.0	2531	0.0	0.521	0.1	LOS A	30.2	211.5	0.00	0.00	59.8
Approach		2912	0.0	2531 N1	0.0	0.521	0.1	NA	30.2	211.5	0.00	0.00	59.8
West: Bridge St													
10	L2	293	0.0	290	0.0	0.896	29.5	LOS C	7.5	52.5	0.73	1.43	8.9
Approach		293	0.0	290 N1	0.0	0.896	29.5	LOS C	7.5	52.5	0.73	1.43	8.9
All Vehicles		4764	0.0	4381 N1	0.0	0.896	2.0	NA	30.2	211.5	0.05	0.10	51.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [2017_am_base_survey]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	593	0.0	592	0.0	0.207	7.0	LOS A	4.3	30.4	0.09	0.56	45.9
2	T1	851	0.0	849	0.0	1.244	306.1	LOS F	76.8	537.4	1.00	1.78	3.9
Approach		1443	0.0	1441 N1	0.0	1.244	183.3	LOS F	76.8	537.4	0.63	1.28	6.3
North: Beecroft Rd													
8	T1	1367	0.0	1367	0.0	1.180	247.1	LOS F	116.6	816.0	1.00	1.66	6.5
9	R2	120	0.0	120	0.0	1.224	305.9	LOS F	21.5	150.2	1.00	1.37	5.3
Approach		1487	0.0	1487	0.0	1.224	251.9	LOS F	116.6	816.0	1.00	1.64	6.4
West: Carlingford Rd													
10	L2	28	0.0	25	0.0	0.019	9.4	LOS A	0.4	2.8	0.21	0.58	22.4
12	R2	1546	0.0	1381	0.0	0.629	20.0	LOS B	16.3	114.2	0.44	0.71	12.9
Approach		1575	0.0	1406 N1	0.0	0.629	19.8	LOS B	16.3	114.2	0.44	0.71	13.0
All Vehicles		4505	0.0	4334 N1	0.0	1.244	153.8	LOS F	116.6	816.0	0.69	1.22	6.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [2017_am_base_survey]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Rawson St													
1	L2	15	0.0	15	0.0	0.276	5.8	LOS A	1.5	10.7	0.55	0.66	49.1
2	T1	104	0.0	104	0.0	0.276	6.1	LOS A	1.5	10.7	0.55	0.66	46.9
3	R2	139	0.0	139	0.0	0.276	10.7	LOS A	1.5	10.7	0.55	0.66	46.9
Approach		258	0.0	258	0.0	0.276	8.5	LOS A	1.5	10.7	0.55	0.66	47.1
East: Bridge St													
4	L2	64	0.0	64	0.0	0.279	5.5	LOS A	1.7	12.2	0.52	0.59	48.9
5	T1	146	0.0	146	0.0	0.279	5.8	LOS A	1.7	12.2	0.52	0.59	44.5
6	R2	75	0.0	75	0.0	0.279	10.4	LOS A	1.7	12.2	0.52	0.59	30.5
Approach		285	0.0	285	0.0	0.279	6.9	LOS A	1.7	12.2	0.52	0.59	44.1
North: Rawson St													
7	L2	45	0.0	42	0.0	0.280	5.6	LOS A	1.5	10.2	0.41	0.62	44.0
8	T1	143	0.0	134	0.0	0.280	5.8	LOS A	1.5	10.2	0.41	0.62	52.7
9	R2	135	0.0	126	0.0	0.280	10.5	LOS A	1.5	10.2	0.41	0.62	49.4
Approach		323	0.0	302[N1]	0.0	0.280	7.7	LOS A	1.5	10.2	0.41	0.62	50.7
West: Bridge St													
10	L2	197	0.0	197	0.0	0.401	5.8	LOS A	2.2	15.6	0.57	0.63	39.3
11	T1	138	0.0	138	0.0	0.401	6.0	LOS A	2.2	15.6	0.57	0.63	39.3
12	R2	28	0.0	28	0.0	0.401	10.7	LOS A	2.2	15.6	0.57	0.63	52.4
Approach		363	0.0	363	0.0	0.401	6.3	LOS A	2.2	15.6	0.57	0.63	41.6
All Vehicles		1229	0.0	1208[N1]	0.0	0.401	7.3	LOS A	2.2	15.6	0.51	0.63	46.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [2017_am_base_survey]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlingford Rd													
5	T1	711	0.0	687	0.0	0.176	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		711	0.0	687[N1]	0.0	0.176	0.0	NA	0.0	0.0	0.00	0.00	60.0
North: RoadName													
7	L2	168	0.0	168	0.0	0.402	8.8	LOS A	0.9	6.4	0.49	0.80	46.8
9	R2	1	0.0	1	0.0	0.010	37.7	LOS C	0.0	0.2	0.90	0.96	27.0
Approach		169	0.0	169	0.0	0.402	8.9	LOS A	0.9	6.4	0.49	0.81	46.6
West: Carlingford Rd													
10	L2	9	0.0	9	0.0	0.232	5.6	LOS A	18.8	131.5	0.00	0.01	57.9
11	T1	895	0.0	895	0.0	0.232	0.0	LOS A	26.4	185.0	0.00	0.01	59.8
Approach		904	0.0	904	0.0	0.232	0.1	NA	26.4	185.0	0.00	0.01	59.7
All Vehicles		1784	0.0	1761[N1]	0.0	0.402	0.9	NA	26.4	185.0	0.05	0.08	56.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [2017_am_base_survey]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	73	0.0	73	0.0	0.074	6.9	LOS A	0.3	1.9	0.37	0.63	45.4
3	R2	27	0.0	27	0.0	0.380	69.3	LOS E	1.2	8.5	0.95	1.02	14.4
Approach		100	0.0	100	0.0	0.380	24.0	LOS B	1.2	8.5	0.53	0.73	28.6
East: Carlingford Rd													
4	L2	44	0.0	43	0.0	0.183	5.6	LOS A	0.0	0.0	0.00	0.07	56.8
5	T1	684	0.0	667	0.0	0.183	0.0	LOS A	0.0	0.0	0.00	0.03	59.1
Approach		728	0.0	710[N1]	0.0	0.183	0.3	NA	0.0	0.0	0.00	0.04	58.8
North: Kent St													
7	L2	83	0.0	83	0.0	0.095	7.7	LOS A	0.4	2.7	0.46	0.67	48.0
Approach		83	0.0	83	0.0	0.095	7.7	LOS A	0.4	2.7	0.46	0.67	48.0
West: Carlingford Rd													
11	T1	849	0.0	849	0.0	0.229	0.2	LOS A	49.3	345.4	0.04	0.01	59.2
12	R2	15	0.0	15	0.0	0.229	10.7	LOS A	49.3	345.4	0.08	0.02	57.1
Approach		864	0.0	864	0.0	0.229	0.4	NA	49.3	345.4	0.04	0.01	59.1
All Vehicles		1776	0.0	1757[N1]	0.0	0.380	2.1	NA	49.3	345.4	0.07	0.09	55.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [2017_am_base_survey]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	58	0.0	58	0.0	0.965	104.4	LOS F	25.0	175.1	1.00	1.14	19.5
2	T1	362	0.0	362	0.0	0.965	99.0	LOS F	25.0	175.1	1.00	1.13	19.7
3	R2	123	0.0	123	0.0	0.965	104.7	LOS F	24.7	173.2	1.00	1.13	9.5
Approach		543	0.0	543	0.0	0.965	100.8	LOS F	25.0	175.1	1.00	1.13	17.7
East: RoadName													
4	L2	58	0.0	56	0.0	0.969	104.2	LOS F	30.1	210.5	1.00	1.16	18.6
5	T1	566	0.0	551	0.0	0.969	98.8	LOS F	30.1	210.5	1.00	1.15	22.0
6	R2	164	0.0	160	0.0	0.496	66.4	LOS E	10.7	74.7	0.95	0.81	27.4
Approach		788	0.0	767[N1]	0.0	0.969	92.4	LOS F	30.1	210.5	0.99	1.08	22.7
North: RoadName													
7	L2	22	0.0	22	0.0	0.778	67.0	LOS E	23.6	165.1	1.00	0.90	20.1
8	T1	311	0.0	311	0.0	0.778	61.5	LOS E	23.6	165.1	1.00	0.90	26.6
9	R2	407	0.0	407	0.0	0.997	116.0	LOS F	40.8	285.8	1.00	1.08	20.5
Approach		740	0.0	740	0.0	0.997	91.6	LOS F	40.8	285.8	1.00	1.00	22.4
West: RoadName													
10	L2	71	0.0	71	0.0	0.772	57.3	LOS E	29.9	209.5	0.98	0.87	31.7
11	T1	701	0.0	701	0.0	0.772	50.8	LOS D	29.9	209.5	0.94	0.84	22.6
12	R2	407	0.0	407	0.0	1.003	120.2	LOS F	43.0	300.7	1.00	1.08	17.2
Approach		1179	0.0	1179	0.0	1.003	75.1	LOS F	43.0	300.7	0.96	0.93	20.4
All Vehicles		3251	0.0	3229[N1]	0.0	1.003	87.3	LOS F	43.0	300.7	0.98	1.01	21.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	61.8	LOS F	0.2	0.2	0.91	0.91
P2	East Full Crossing	53	58.2	LOS E	0.2	0.2	0.88	0.88
P3	North Full Crossing	53	45.7	LOS E	0.2	0.2	0.78	0.78
P4	West Full Crossing	53	68.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		211	58.5	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.

MOVEMENT SUMMARY

Site: Rawson [Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [2017_am_base_survey]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	77	0.0	77	0.0	0.524	52.8	LOS D	11.4	79.5	0.79	0.71	17.7
2	T1	100	0.0	100	0.0	0.524	47.2	LOS D	11.4	79.5	0.79	0.71	17.7
3	R2	132	0.0	132	0.0	5.771	4328.6	LOS F	57.9	405.3	1.00	1.79	0.3
Approach		308	0.0	308	0.0	5.771	1875.1	LOS F	57.9	405.3	0.88	1.17	0.6
East: Carlingford Rd													
4	L2	103	0.0	100	0.0	0.287	21.3	LOS B	11.1	77.9	0.42	0.47	13.4
5	T1	584	0.0	566	0.0	0.287	19.2	LOS B	16.3	114.2	0.54	0.52	12.4
Approach		687	0.0	666 N1	0.0	0.287	19.5	LOS B	16.3	114.2	0.53	0.51	12.6
North: Ray St													
7	L2	301	0.0	301	0.0	1.249	325.4	LOS F	23.3	163.2	1.00	1.40	1.2
8	T1	258	0.0	258	0.0	1.083	188.4	LOS F	23.3	163.2	1.00	1.37	2.1
9	R2	11	0.0	11	0.0	1.083	193.9	LOS F	23.3	163.2	1.00	1.37	2.1
Approach		569	0.0	569	0.0	1.249	260.9	LOS F	23.3	163.2	1.00	1.39	1.5
West: Carlingford Rd													
10	L2	12	0.0	12	0.0	0.897	58.9	LOS E	23.3	163.2	0.94	0.98	6.9
11	T1	1062	0.0	1062	0.0	0.897	52.9	LOS D	23.3	163.2	0.94	0.98	7.0
Approach		1074	0.0	1074	0.0	0.897	53.0	LOS D	23.3	163.2	0.94	0.98	7.0
All Vehicles		2639	0.0	2617 N1	0.0	5.771	304.4	LOS F	57.9	405.3	0.84	0.97	1.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [2017_am_base_survey]

New Site
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Blaxland Rd													
1	L2	451	0.0	451	0.0	0.369	17.8	LOS B	5.0	34.7	0.75	0.77	18.8
2	T1	114	0.0	114	0.0	0.860	53.8	LOS D	5.8	40.4	1.00	0.97	15.2
Approach		564	0.0	564	0.0	0.860	25.1	LOS B	5.8	40.4	0.80	0.81	17.3
East: Epping Rd													
4	L2	12	0.0	12	0.0	0.821	44.9	LOS D	18.8	131.5	1.00	0.97	15.0
5	T1	806	0.0	806	0.0	0.821	39.4	LOS C	18.8	131.7	1.00	0.97	15.0
Approach		818	0.0	818	0.0	0.821	39.5	LOS C	18.8	131.7	1.00	0.97	15.0
North: Landston Place													
7	L2	15	0.0	15	0.0	0.867	58.4	LOS E	7.4	51.6	1.00	0.99	9.8
8	T1	71	0.0	71	0.0	0.867	52.9	LOS D	7.4	51.6	1.00	0.99	9.8
9	R2	204	0.0	204	0.0	0.867	58.6	LOS E	7.4	51.6	1.00	0.99	9.5
Approach		289	0.0	289	0.0	0.867	57.2	LOS E	7.4	51.6	1.00	0.99	9.6
West: Bridge St													
10	L2	349	0.0	302	0.0	0.245	5.6	LOS A	2.1	14.4	0.25	0.62	41.5
11	T1	1996	0.0	1725	0.0	0.882	24.7	LOS B	14.0	97.9	0.80	0.86	9.8
12	R2	528	0.0	457	0.0	0.881	48.2	LOS D	14.0	97.9	1.00	1.07	5.3
Approach		2874	0.0	2483 N1	0.0	0.882	26.7	LOS B	14.0	97.9	0.77	0.87	10.9
All Vehicles		4545	0.0	4155 N1	0.0	0.882	31.1	LOS C	18.8	131.7	0.84	0.89	12.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [2017_am_base_survey]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	41	0.0	41	0.0	0.843	62.5	LOS E	7.1	49.5	1.00	0.95	6.4
2	T1	111	0.0	111	0.0	0.843	57.0	LOS E	7.1	49.5	1.00	0.95	12.0
3	R2	104	0.0	104	0.0	0.843	62.7	LOS E	6.9	48.4	1.00	0.95	6.1
Approach		256	0.0	256	0.0	0.843	60.2	LOS E	7.1	49.5	1.00	0.95	8.8
East: Epping Rd													
4	L2	23	0.0	23	0.0	0.325	13.6	LOS A	5.5	38.4	0.62	0.55	41.5
5	T1	615	0.0	615	0.0	0.325	8.1	LOS A	5.5	38.4	0.62	0.54	41.8
6	R2	1	0.0	1	0.0	0.325	13.6	LOS A	5.4	37.9	0.62	0.53	43.9
Approach		639	0.0	639	0.0	0.325	8.3	LOS A	5.5	38.4	0.62	0.54	41.7
North: Essex St													
7	L2	7	0.0	7	0.0	0.195	44.5	LOS D	2.7	19.1	0.90	0.69	14.8
8	T1	141	0.0	141	0.0	0.840	45.9	LOS D	14.3	99.9	0.96	0.86	16.9
9	R2	184	0.0	184	0.0	0.840	56.2	LOS D	14.3	99.9	1.00	0.97	11.5
Approach		333	0.0	333	0.0	0.840	51.6	LOS D	14.3	99.9	0.98	0.91	13.9
West: Epping Rd													
10	L2	29	0.0	26	0.0	0.888	27.9	LOS B	28.0	195.8	0.97	0.97	23.9
11	T1	1972	0.0	1707	0.0	0.888	22.5	LOS B	28.0	195.8	0.97	0.97	15.9
12	R2	15	0.0	13	0.0	0.888	28.2	LOS B	28.0	195.8	0.97	0.97	21.5
Approach		2016	0.0	1745[N1]	0.0	0.888	22.6	LOS B	28.0	195.8	0.97	0.97	16.1
All Vehicles		3243	0.0	2972[N1]	0.0	0.888	26.0	LOS B	28.0	195.8	0.90	0.87	18.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [2017_am_base_survey]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	28	0.0	28	0.0	0.031	7.4	LOS A	0.1	0.9	0.42	0.61	29.1
3	R2	1	0.0	1	0.0	0.271	518.5	LOS F	0.3	2.3	0.99	1.00	0.8
Approach		29	0.0	29	0.0	0.271	25.6	LOS B	0.3	2.3	0.44	0.63	12.8
East: Epping Rd													
4	L2	8	0.0	8	0.0	0.216	5.5	LOS A	0.0	0.0	0.00	0.01	59.1
5	T1	835	0.0	835	0.0	0.216	0.0	LOS A	0.0	0.0	0.00	0.01	59.5
Approach		843	0.0	843	0.0	0.216	0.1	NA	0.0	0.0	0.00	0.01	59.5
West: Epping Rd													
11	T1	1997	0.0	1727	0.0	0.458	0.2	LOS A	2.6	18.2	0.04	0.01	54.6
12	R2	23	0.0	20	0.0	0.458	11.8	LOS A	2.6	18.2	0.07	0.01	49.9
Approach		2020	0.0	1747[N1]	0.0	0.458	0.4	NA	2.6	18.2	0.04	0.01	54.5
All Vehicles		2893	0.0	2619[N1]	0.0	0.458	0.6	NA	2.6	18.2	0.03	0.01	54.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [2017_am_base_survey]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	22	0.0	19	0.0	0.565	10.8	LOS A	25.1	175.4	0.35	0.34	49.5
2	T1	2067	0.0	1804	0.0	0.565	5.2	LOS A	25.1	175.6	0.35	0.34	54.1
Approach		2089	0.0	1824 N1	0.0	0.565	5.3	LOS A	25.1	175.6	0.35	0.34	54.1
North: Epping Rd													
8	T1	635	0.0	635	0.0	0.197	3.3	LOS A	5.5	38.7	0.22	0.19	54.2
9	R2	208	0.0	208	0.0	2.057	1089.8	LOS F	70.3	491.8	1.00	2.08	2.4
Approach		843	0.0	843	0.0	2.057	271.9	LOS F	70.3	491.8	0.41	0.66	6.6
West: Pembroke St													
10	L2	411	0.0	411	0.0	1.047	164.0	LOS F	25.8	180.3	1.00	1.10	12.7
Approach		411	0.0	411	0.0	1.047	164.0	LOS F	25.8	180.3	1.00	1.10	12.7
All Vehicles		3343	0.0	3077 N1	0.0	2.057	99.5	LOS F	70.3	491.8	0.46	0.53	18.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	83.3	LOS F	0.3	0.3	0.96	0.96
P3	North Full Crossing	53	84.3	LOS F	0.3	0.3	0.97	0.97
P4	West Full Crossing	53	4.5	LOS A	0.1	0.1	0.22	0.22
All Pedestrians		158	57.4	LOS E			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [2017_am_base_survey]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Epping Rd													
5	T1	861	0.0	861	0.0	0.226	0.4	LOS A	0.3	2.3	0.02	0.00	53.6
6	R2	2	0.0	2	0.0	0.226	30.8	LOS C	0.3	2.3	0.04	0.00	51.2
Approach		863	0.0	863	0.0	0.226	0.5	NA	0.3	2.3	0.02	0.00	53.6
North: Smith St													
7	L2	2	0.0	2	0.0	0.005	11.1	LOS A	0.0	0.1	0.62	0.68	31.9
9	R2	6	0.0	6	0.0	0.494	391.0	LOS F	1.3	9.0	0.99	1.02	1.9
Approach		8	0.0	8	0.0	0.494	296.0	LOS F	1.3	9.0	0.90	0.93	2.5
West: Epping Rd													
10	L2	7	0.0	6	0.0	0.452	5.6	LOS A	45.7	320.2	0.00	0.00	56.0
11	T1	2018	0.0	1758	0.0	0.452	0.0	LOS A	45.7	320.2	0.00	0.00	59.8
Approach		2025	0.0	1764 N1	0.0	0.452	0.0	NA	45.7	320.2	0.00	0.00	59.7
All Vehicles		2897	0.0	2636 N1	0.0	0.494	1.1	NA	45.7	320.2	0.01	0.00	53.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 156.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [2017_pm_base_survey]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: High St													
1	L2	47	0.0	47	0.0	0.048	1.9	LOS A	0.2	1.5	0.45	0.29	48.4
Approach		47	0.0	47	0.0	0.048	1.9	NA	0.2	1.5	0.45	0.29	48.4
East: Bridge													
4	L2	97	0.0	90	0.0	0.650	0.0	LOS A	2.6	18.1	0.00	0.00	54.3
5	T1	447	0.0	414	0.0	0.650	0.0	LOS A	2.6	18.1	0.00	0.00	47.7
6	R2	2084	0.0	1929	0.0	0.650	0.1	LOS A	14.0	97.9	0.00	0.00	52.6
Approach		2628	0.0	2433 N1	0.0	0.650	0.1	NA	14.0	97.9	0.00	0.00	52.1
North: Beecroft Rd													
7	L2	1444	0.0	1411	0.0	0.290	0.0	LOS A	13.8	96.4	0.00	0.00	59.9
Approach		1444	0.0	1411 N1	0.0	0.290	0.0	NA	13.8	96.4	0.00	0.00	59.9
West: Bridge St													
10	L2	261	0.0	258	0.0	0.776	15.6	LOS B	4.2	29.2	0.68	1.02	13.4
Approach		261	0.0	258 N1	0.0	0.776	15.6	LOS B	4.2	29.2	0.68	1.02	13.4
All Vehicles		4381	0.0	4149 N1	0.0	0.776	1.0	NA	14.0	97.9	0.05	0.07	51.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [2017_pm_base_survey]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	953	0.0	889	0.0	0.387	8.0	LOS A	19.1	133.4	0.10	0.57	44.4
2	T1	1378	0.0	1285	0.0	1.111	191.7	LOS F	81.6	571.2	1.00	1.49	6.1
Approach		2331	0.0	2174 N1	0.0	1.111	116.6	LOS F	81.6	571.2	0.63	1.11	9.4
North: Beecroft Rd													
8	T1	608	0.0	608	0.0	0.267	19.3	LOS B	12.8	89.6	0.53	0.46	37.0
9	R2	191	0.0	191	0.0	1.097	207.5	LOS F	28.2	197.7	1.00	1.23	7.6
Approach		799	0.0	799	0.0	1.097	64.2	LOS E	28.2	197.7	0.64	0.64	19.3
West: Carlingford Rd													
10	L2	84	0.0	84	0.0	0.083	17.8	LOS B	2.2	15.3	0.34	0.63	14.4
12	R2	777	0.0	773	0.0	0.639	32.5	LOS C	16.3	114.2	0.62	0.75	8.7
Approach		861	0.0	857 N1	0.0	0.639	31.1	LOS C	16.3	114.2	0.59	0.74	9.0
All Vehicles		3991	0.0	3830 N1	0.0	1.111	86.5	LOS F	81.6	571.2	0.63	0.93	11.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [2017_pm_base_survey]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Epping Rd													
5	T1	1726	0.0	1556	0.0	0.401	0.0	LOS A	11.7	81.6	0.00	0.00	59.2
6	R2	2	0.0	2	0.0	0.401	13.4	LOS A	11.7	81.6	0.01	0.00	53.8
Approach		1728	0.0	1558 N1	0.0	0.401	0.1	NA	11.7	81.6	0.00	0.00	59.2
North: Smith St													
7	L2	5	0.0	5	0.0	0.006	7.4	LOS A	0.0	0.1	0.43	0.59	37.9
9	R2	5	0.0	5	0.0	1.041	824.0	LOS F	1.7	11.6	1.00	1.10	0.9
Approach		11	0.0	11	0.0	1.041	415.7	LOS F	1.7	11.6	0.71	0.84	1.7
West: Epping Rd													
10	L2	24	0.0	24	0.0	0.231	5.5	LOS A	0.0	0.0	0.00	0.03	55.5
11	T1	896	0.0	878	0.0	0.231	0.0	LOS A	0.0	0.0	0.00	0.02	59.3
Approach		920	0.0	901 N1	0.0	0.231	0.2	NA	0.0	0.0	0.00	0.02	59.1
All Vehicles		2659	0.0	2470 N1	0.0	1.041	1.9	NA	11.7	81.6	0.01	0.01	47.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [2017_pm_base_survey]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Rawson St													
1	L2	40	0.0	40	0.0	0.299	7.2	LOS A	2.0	13.8	0.69	0.75	48.4
2	T1	111	0.0	111	0.0	0.299	7.4	LOS A	2.0	13.8	0.69	0.75	46.1
3	R2	116	0.0	116	0.0	0.299	12.0	LOS A	2.0	13.8	0.69	0.75	46.1
Approach		266	0.0	266	0.0	0.299	9.4	LOS A	2.0	13.8	0.69	0.75	46.5
East: Bridge St													
4	L2	52	0.0	48	0.0	0.390	5.5	LOS A	2.9	20.3	0.54	0.59	48.7
5	T1	308	0.0	288	0.0	0.390	5.7	LOS A	2.9	20.3	0.54	0.59	44.2
6	R2	125	0.0	117	0.0	0.390	10.3	LOS A	2.9	20.3	0.54	0.59	30.4
Approach		485	0.0	453[N1]	0.0	0.390	6.9	LOS A	2.9	20.3	0.54	0.59	42.9
North: Rawson St													
7	L2	63	0.0	61	0.0	0.253	5.2	LOS A	1.3	9.1	0.39	0.61	44.2
8	T1	97	0.0	94	0.0	0.253	5.4	LOS A	1.3	9.1	0.39	0.61	52.8
9	R2	137	0.0	132	0.0	0.253	10.1	LOS A	1.3	9.1	0.39	0.61	49.6
Approach		297	0.0	287[N1]	0.0	0.253	7.5	LOS A	1.3	9.1	0.39	0.61	50.2
West: Bridge St													
10	L2	172	0.0	172	0.0	0.290	5.8	LOS A	1.8	12.8	0.57	0.63	39.3
11	T1	103	0.0	103	0.0	0.290	6.1	LOS A	1.8	12.8	0.57	0.63	39.3
12	R2	25	0.0	25	0.0	0.290	10.7	LOS A	1.8	12.8	0.57	0.63	52.4
Approach		300	0.0	300	0.0	0.290	6.3	LOS A	1.8	12.8	0.57	0.63	41.7
All Vehicles		1348	0.0	1306[N1]	0.0	0.390	7.4	LOS A	2.9	20.3	0.54	0.64	45.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [2017_pm_base_survey]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlingford Rd													
5	T1	1133	0.0	1042	0.0	0.267	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		1133	0.0	1042[N1]	0.0	0.267	0.0	NA	0.0	0.0	0.00	0.00	59.9
North: RoadName													
7	L2	25	0.0	25	0.0	0.050	6.7	LOS A	0.1	0.6	0.34	0.60	49.0
9	R2	21	0.0	21	0.0	0.160	33.6	LOS C	0.5	3.5	0.90	0.96	28.8
Approach		46	0.0	46	0.0	0.160	18.9	LOS B	0.5	3.5	0.59	0.76	37.1
West: Carlingford Rd													
10	L2	7	0.0	7	0.0	0.147	5.5	LOS A	6.9	48.5	0.00	0.02	57.9
11	T1	564	0.0	564	0.0	0.147	0.0	LOS A	7.5	52.2	0.00	0.01	59.8
Approach		572	0.0	572	0.0	0.147	0.1	NA	7.5	52.2	0.00	0.01	59.7
All Vehicles		1751	0.0	1660[N1]	0.0	0.267	0.6	NA	7.5	52.2	0.02	0.02	57.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [2017_pm_base_survey]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	96	0.0	96	0.0	0.120	8.1	LOS A	0.4	3.0	0.48	0.72	43.9
3	R2	19	0.0	19	0.0	0.294	70.5	LOS F	0.9	6.3	0.95	1.00	14.2
Approach		115	0.0	115	0.0	0.294	18.4	LOS B	0.9	6.3	0.56	0.77	32.6
East: Carlingford Rd													
4	L2	43	0.0	39	0.0	0.267	5.6	LOS A	0.0	0.0	0.00	0.05	57.1
5	T1	1096	0.0	1001	0.0	0.267	0.0	LOS A	0.0	0.0	0.00	0.02	59.4
Approach		1139	0.0	1040[N1]	0.0	0.267	0.2	NA	0.0	0.0	0.00	0.02	59.2
North: Kent St													
7	L2	2	0.0	2	0.0	0.002	7.0	LOS A	0.0	0.1	0.39	0.54	48.7
Approach		2	0.0	2	0.0	0.002	7.0	LOS A	0.0	0.1	0.39	0.54	48.7
West: Carlingford Rd													
11	T1	576	0.0	576	0.0	0.192	1.4	LOS A	31.6	220.9	0.15	0.04	56.0
12	R2	37	0.0	37	0.0	0.192	14.7	LOS B	31.6	220.9	0.42	0.12	52.1
Approach		613	0.0	613	0.0	0.192	2.2	NA	31.6	220.9	0.17	0.05	55.5
All Vehicles		1868	0.0	1770[N1]	0.0	0.294	2.1	NA	31.6	220.9	0.09	0.08	55.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [2017_pm_base_survey]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	89	0.0	89	0.0	0.875	58.7	LOS E	16.7	116.9	1.00	1.02	27.9
2	T1	429	0.0	429	0.0	0.875	53.1	LOS D	16.7	116.9	1.00	1.02	28.4
3	R2	86	0.0	86	0.0	0.875	58.7	LOS E	16.7	116.9	1.00	1.02	15.6
Approach		605	0.0	605	0.0	0.875	54.7	LOS D	16.7	116.9	1.00	1.02	27.0
East: RoadName													
4	L2	55	0.0	50	0.0	0.905	57.8	LOS E	27.3	190.9	1.00	1.09	27.3
5	T1	935	0.0	850	0.0	0.905	52.2	LOS D	27.3	190.9	1.00	1.09	31.3
6	R2	211	0.0	191	0.0	0.382	37.8	LOS C	7.7	53.7	0.86	0.79	35.5
Approach		1200	0.0	1092 N1	0.0	0.905	49.9	LOS D	27.3	190.9	0.97	1.03	31.8
North: RoadName													
7	L2	27	0.0	27	0.0	0.601	49.6	LOS D	8.2	57.4	0.98	0.80	24.6
8	T1	262	0.0	262	0.0	0.601	44.1	LOS D	8.2	57.4	0.98	0.80	31.2
9	R2	58	0.0	58	0.0	0.601	49.7	LOS D	8.1	57.0	0.98	0.80	33.8
Approach		347	0.0	347	0.0	0.601	45.5	LOS D	8.2	57.4	0.98	0.80	31.3
West: RoadName													
10	L2	53	0.0	53	0.0	0.851	57.6	LOS E	14.1	99.0	1.00	0.99	31.6
11	T1	476	0.0	476	0.0	0.851	52.0	LOS D	14.3	99.9	1.00	0.99	22.3
12	R2	225	0.0	225	0.0	0.758	52.6	LOS D	11.3	79.1	1.00	0.88	28.4
Approach		754	0.0	754	0.0	0.851	52.6	LOS D	14.3	99.9	1.00	0.96	25.2
All Vehicles		2906	0.0	2798 N1	0.0	0.905	51.1	LOS D	27.3	190.9	0.99	0.98	29.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	36.2	LOS D	0.1	0.1	0.85	0.85
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	42.3	LOS E			0.92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.

MOVEMENT SUMMARY

Site: Rawson [Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [2017_pm_base_survey]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	109	0.0	107	0.0	0.590	25.0	LOS B	11.7	81.7	0.53	0.56	29.4
2	T1	173	0.0	168	0.0	0.590	19.5	LOS B	11.7	81.7	0.53	0.56	29.4
3	R2	142	0.0	139	0.0	3.373	2190.4	LOS F	54.0	378.1	1.00	1.96	0.5
Approach		424	0.0	414[N1]	0.0	3.373	748.1	LOS F	54.0	378.1	0.69	1.03	1.6
East: Carlingford Rd													
4	L2	108	0.0	100	0.0	0.754	59.5	LOS E	16.3	114.2	0.92	0.83	5.1
5	T1	1005	0.0	925	0.0	0.754	54.8	LOS D	16.3	114.2	0.95	0.85	5.2
Approach		1114	0.0	1024[N1]	0.0	0.754	55.2	LOS D	16.3	114.2	0.94	0.85	5.2
North: Ray St													
7	L2	171	0.0	170	0.0	0.456	26.3	LOS B	9.0	63.3	0.56	0.70	12.9
8	T1	132	0.0	132	0.0	1.236	241.0	LOS F	23.3	163.2	0.90	1.25	1.6
9	R2	35	0.0	35	0.0	1.236	311.0	LOS F	23.3	163.2	1.00	1.41	1.3
Approach		337	0.0	337	0.0	1.236	139.5	LOS F	23.3	163.2	0.74	0.99	2.7
West: Carlingford Rd													
10	L2	23	0.0	23	0.0	0.895	87.2	LOS F	23.3	163.2	1.00	1.05	4.7
11	T1	598	0.0	598	0.0	0.895	82.0	LOS F	23.3	163.2	1.00	1.06	4.7
Approach		621	0.0	621	0.0	0.895	82.2	LOS F	23.3	163.2	1.00	1.06	4.7
All Vehicles		2496	0.0	2396[N1]	0.0	3.373	193.8	LOS F	54.0	378.1	0.89	0.95	2.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [2017_pm_base_survey]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Blaxland Rd													
1	L2	586	0.0	586	0.0	0.903	82.2	LOS F	20.0	140.0	1.00	1.11	5.4
2	T1	43	0.0	43	0.0	0.635	83.2	LOS F	3.4	23.7	1.00	0.78	10.8
Approach		629	0.0	629	0.0	0.903	82.2	LOS F	20.0	140.0	1.00	1.08	5.8
East: Epping Rd													
4	L2	2	0.0	2	0.0	0.989	83.9	LOS F	46.6	326.4	1.00	1.16	8.6
5	T1	1692	0.0	1521	0.0	0.989	85.6	LOS F	46.6	326.4	1.00	1.20	8.0
Approach		1694	0.0	1523 N1	0.0	0.989	85.6	LOS F	46.6	326.4	1.00	1.20	8.0
North: Landston Place													
7	L2	4	0.0	4	0.0	0.962	105.5	LOS F	17.4	121.5	1.00	1.08	5.7
8	T1	35	0.0	35	0.0	0.962	100.0	LOS F	17.4	121.5	1.00	1.08	5.7
9	R2	248	0.0	248	0.0	0.962	109.7	LOS F	17.4	121.5	1.00	1.08	5.4
Approach		287	0.0	287	0.0	0.962	108.5	LOS F	17.4	121.5	1.00	1.08	5.5
West: Bridge St													
10	L2	298	0.0	291	0.0	0.215	4.9	LOS A	1.6	11.1	0.13	0.58	42.9
11	T1	834	0.0	815	0.0	0.358	7.3	LOS A	12.2	85.1	0.38	0.33	23.8
12	R2	283	0.0	277	0.0	0.997	119.6	LOS F	14.0	97.9	1.00	1.21	2.3
Approach		1415	0.0	1384 N1	0.0	0.997	29.3	LOS C	14.0	97.9	0.45	0.56	11.3
All Vehicles		4025	0.0	3823 N1	0.0	0.997	66.4	LOS E	46.6	326.4	0.80	0.94	7.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [2017_pm_base_survey]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	173	0.0	173	0.0	1.073	175.9	LOS F	21.6	151.1	1.00	1.23	2.2
2	T1	219	0.0	219	0.0	1.064	156.3	LOS F	30.0	209.9	1.00	1.34	5.0
3	R2	36	0.0	36	0.0	1.064	161.9	LOS F	30.0	209.9	1.00	1.34	2.5
Approach		427	0.0	427	0.0	1.073	164.7	LOS F	30.0	209.9	1.00	1.29	3.7
East: Epping Rd													
4	L2	6	0.0	6	0.0	1.034	116.9	LOS F	44.9	314.6	1.00	1.29	9.3
5	T1	1098	0.0	1098	0.0	1.034	108.5	LOS F	52.7	369.2	1.00	1.29	7.6
6	R2	1	0.0	1	0.0	1.034	111.7	LOS F	52.7	369.2	1.00	1.30	10.3
Approach		1105	0.0	1105	0.0	1.034	108.5	LOS F	52.7	369.2	1.00	1.29	7.6
North: Essex St													
7	L2	3	0.0	3	0.0	0.246	63.2	LOS E	5.3	36.8	0.91	0.71	11.0
8	T1	92	0.0	92	0.0	1.062	70.8	LOS F	25.1	175.6	0.92	0.78	12.5
9	R2	197	0.0	197	0.0	1.062	165.1	LOS F	25.1	175.6	1.00	1.22	4.3
Approach		292	0.0	292	0.0	1.062	134.4	LOS F	25.1	175.6	0.97	1.07	5.9
West: Epping Rd													
10	L2	18	0.0	18	0.0	0.513	19.5	LOS B	12.4	86.7	0.73	0.65	30.2
11	T1	768	0.0	754	0.0	0.513	17.6	LOS B	12.4	86.7	0.78	0.68	18.9
12	R2	18	0.0	18	0.0	0.513	29.3	LOS C	10.1	70.7	0.87	0.74	20.8
Approach		804	0.0	790[N1]	0.0	0.513	17.9	LOS B	12.4	86.7	0.78	0.68	19.3
All Vehicles		2628	0.0	2614[N1]	0.0	1.073	93.2	LOS F	52.7	369.2	0.93	1.08	7.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [2017_pm_base_survey]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	13	0.0	12	0.0	0.251	9.0	LOS A	7.5	52.3	0.23	0.22	51.6
2	T1	815	0.0	799	0.0	0.251	3.5	LOS A	7.5	52.3	0.23	0.22	55.9
Approach		827	0.0	811 N1	0.0	0.251	3.6	LOS A	7.5	52.3	0.23	0.22	55.8
North: Epping Rd													
8	T1	1095	0.0	1095	0.0	0.631	5.9	LOS A	17.2	120.2	0.39	0.37	50.3
9	R2	207	0.0	207	0.0	0.434	12.4	LOS A	6.0	41.8	0.35	0.69	45.7
Approach		1302	0.0	1302	0.0	0.631	6.9	LOS A	17.2	120.2	0.39	0.42	49.3
West: Pembroke St													
10	L2	208	0.0	208	0.0	0.532	89.1	LOS F	8.8	61.8	0.99	0.79	20.0
Approach		208	0.0	208	0.0	0.532	89.1	LOS F	8.8	61.8	0.99	0.79	20.0
All Vehicles		2338	0.0	2322 N1	0.0	0.631	13.2	LOS A	17.2	120.2	0.39	0.38	44.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	83.3	LOS F	0.3	0.3	0.96	0.96
P3	North Full Crossing	53	84.3	LOS F	0.3	0.3	0.97	0.97
P4	West Full Crossing	53	4.5	LOS A	0.1	0.1	0.22	0.22
All Pedestrians		158	57.4	LOS E			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [2017_pm_base_survey]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	267	0.0	267	0.0	0.731	17.4	LOS B	3.7	26.2	0.64	1.12	17.1
3	R2	3	0.0	3	0.0	0.059	69.7	LOS E	0.2	1.2	0.95	0.98	5.3
Approach		271	0.0	271	0.0	0.731	18.0	LOS B	3.7	26.2	0.64	1.12	16.7
East: Epping Rd													
4	L2	5	0.0	5	0.0	0.331	5.5	LOS A	28.0	195.8	0.00	0.00	59.6
5	T1	1468	0.0	1287	0.0	0.331	0.0	LOS A	28.0	195.8	0.00	0.00	59.8
Approach		1474	0.0	1292[N1]	0.0	0.331	0.0	NA	28.0	195.8	0.00	0.00	59.8
West: Epping Rd													
11	T1	793	0.0	777	0.0	0.314	1.8	LOS A	86.4	604.8	0.16	0.08	37.6
12	R2	103	0.0	101	0.0	0.314	14.2	LOS A	86.4	604.8	0.73	0.36	15.9
Approach		896	0.0	879[N1]	0.0	0.314	3.2	NA	86.4	604.8	0.22	0.11	32.4
All Vehicles		2640	0.0	2441[N1]	0.0	0.731	3.2	NA	86.4	604.8	0.15	0.16	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 197.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [2017_am_base_modelled]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: High St													
1	L2	32	0.0	32	0.0	0.027	1.0	LOS A	0.1	0.9	0.33	0.16	49.1
Approach		32	0.0	32	0.0	0.027	1.0	NA	0.1	0.9	0.33	0.16	49.1
East: Bridge													
4	L2	173	0.0	172	0.0	0.397	0.0	LOS A	2.4	17.1	0.00	0.00	53.7
5	T1	244	0.0	244	0.0	0.397	0.0	LOS A	2.4	17.1	0.00	0.00	44.3
6	R2	1072	0.0	1069	0.0	0.397	0.0	LOS A	4.2	29.7	0.00	0.00	52.2
Approach		1488	0.0	1484 N1	0.0	0.397	0.0	NA	4.2	29.7	0.00	0.00	51.8
North: Beecroft Rd													
7	L2	2908	0.0	2601	0.0	0.535	0.1	LOS A	40.8	285.9	0.00	0.00	59.8
Approach		2908	0.0	2601 N1	0.0	0.535	0.1	NA	40.8	285.9	0.00	0.00	59.8
West: Bridge St													
10	L2	266	0.0	246	0.0	0.488	2.8	LOS A	1.7	11.6	0.44	0.37	25.5
Approach		266	0.0	246 N1	0.0	0.488	2.8	LOS A	1.7	11.6	0.44	0.37	25.5
All Vehicles		4695	0.0	4362 N1	0.0	0.535	0.2	NA	40.8	285.9	0.03	0.02	56.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [2017_am_base_modelled]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	482	0.0	474	0.0	0.191	7.5	LOS A	3.5	24.7	0.09	0.56	45.2
2	T1	856	0.0	841	0.0	1.540	558.9	LOS F	81.6	571.2	1.00	2.19	2.2
Approach		1338	0.0	1315 N1	0.0	1.540	360.2	LOS F	81.6	571.2	0.67	1.60	3.4
North: Beecroft Rd													
8	T1	1467	0.0	1467	0.0	1.292	340.6	LOS F	116.6	816.0	1.00	1.93	4.8
9	R2	226	0.0	226	0.0	1.513	547.7	LOS F	54.2	379.7	1.00	1.68	3.1
Approach		1694	0.0	1694	0.0	1.513	368.3	LOS F	116.6	816.0	1.00	1.90	4.5
West: Carlingford Rd													
10	L2	58	0.0	54	0.0	0.038	8.2	LOS A	0.7	5.2	0.19	0.59	24.3
12	R2	1441	0.0	1340	0.0	0.639	18.9	LOS B	16.3	114.2	0.39	0.69	13.5
Approach		1499	0.0	1394 N1	0.0	0.639	18.5	LOS B	16.3	114.2	0.39	0.69	13.7
All Vehicles		4531	0.0	4402 N1	0.0	1.540	255.1	LOS F	116.6	816.0	0.71	1.43	4.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [2017_am_base_modelled]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Rawson St													
1	L2	12	0.0	12	0.0	0.160	5.2	LOS A	0.9	6.3	0.44	0.57	50.3
2	T1	113	0.0	113	0.0	0.160	5.4	LOS A	0.9	6.3	0.44	0.57	48.4
3	R2	56	0.0	56	0.0	0.160	10.1	LOS A	0.9	6.3	0.44	0.57	48.4
Approach		180	0.0	180	0.0	0.160	6.9	LOS A	0.9	6.3	0.44	0.57	48.6
East: Bridge St													
4	L2	27	0.0	27	0.0	0.183	4.6	LOS A	1.1	7.9	0.33	0.56	48.7
5	T1	76	0.0	76	0.0	0.183	4.8	LOS A	1.1	7.9	0.33	0.56	44.2
6	R2	128	0.0	128	0.0	0.183	9.5	LOS A	1.1	7.9	0.33	0.56	30.7
Approach		232	0.0	231 N1	0.0	0.183	7.4	LOS A	1.1	7.9	0.33	0.56	40.1
North: Rawson St													
7	L2	55	0.0	34	0.0	0.124	4.5	LOS A	0.6	3.9	0.24	0.54	45.6
8	T1	93	0.0	58	0.0	0.124	4.8	LOS A	0.6	3.9	0.24	0.54	53.6
9	R2	97	0.0	61	0.0	0.124	9.4	LOS A	0.6	3.9	0.24	0.54	50.7
Approach		244	0.0	153 N1	0.0	0.124	6.5	LOS A	0.6	3.9	0.24	0.54	51.4
West: Bridge St													
10	L2	123	0.0	123	0.0	0.190	5.4	LOS A	1.1	7.4	0.48	0.59	40.0
11	T1	58	0.0	58	0.0	0.190	5.6	LOS A	1.1	7.4	0.48	0.59	40.0
12	R2	26	0.0	26	0.0	0.190	10.3	LOS A	1.1	7.4	0.48	0.59	52.7
Approach		207	0.0	207	0.0	0.190	6.1	LOS A	1.1	7.4	0.48	0.59	43.4
All Vehicles		863	0.0	771 N1	0.0	0.190	6.7	LOS A	1.1	7.9	0.38	0.57	46.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [2017_am_base_modelled]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlingford Rd													
5	T1	844	0.0	776	0.0	0.199	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		844	0.0	776[N1]	0.0	0.199	0.0	NA	0.0	0.0	0.00	0.00	60.0
North: RoadName													
7	L2	116	0.0	116	0.0	0.287	8.3	LOS A	0.6	3.9	0.49	0.77	47.3
9	R2	47	0.0	47	0.0	0.598	79.7	LOS F	2.1	14.8	0.97	1.07	16.8
Approach		163	0.0	163	0.0	0.598	29.0	LOS C	2.1	14.8	0.63	0.86	31.0
West: Carlingford Rd													
10	L2	23	0.0	23	0.0	0.255	5.6	LOS A	17.3	121.4	0.00	0.03	57.8
11	T1	972	0.0	972	0.0	0.255	0.0	LOS A	31.2	218.4	0.00	0.01	59.6
Approach		995	0.0	995	0.0	0.255	0.1	NA	31.2	218.4	0.00	0.01	59.5
All Vehicles		2002	0.0	1934[N1]	0.0	0.598	2.5	NA	31.2	218.4	0.05	0.08	52.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [2017_am_base_modelled]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	72	0.0	72	0.0	0.076	7.1	LOS A	0.3	1.9	0.40	0.64	45.2
3	R2	27	0.0	27	0.0	0.570	122.6	LOS F	1.8	12.9	0.98	1.05	9.1
Approach		99	0.0	99	0.0	0.570	39.1	LOS C	1.8	12.9	0.56	0.76	21.6
East: Carlingford Rd													
4	L2	60	0.0	54	0.0	0.207	5.6	LOS A	0.0	0.0	0.00	0.08	56.7
5	T1	832	0.0	751	0.0	0.207	0.0	LOS A	0.0	0.0	0.00	0.04	59.0
Approach		892	0.0	805 N1	0.0	0.207	0.4	NA	0.0	0.0	0.00	0.04	58.7
North: Kent St													
7	L2	31	0.0	31	0.0	0.041	8.6	LOS A	0.2	1.1	0.52	0.69	46.9
Approach		31	0.0	31	0.0	0.041	8.6	LOS A	0.2	1.1	0.52	0.69	46.9
West: Carlingford Rd													
11	T1	937	0.0	937	0.0	0.306	1.1	LOS A	55.1	385.6	0.15	0.05	56.5
12	R2	77	0.0	77	0.0	0.306	12.2	LOS A	55.1	385.6	0.41	0.14	53.0
Approach		1014	0.0	1014	0.0	0.306	1.9	NA	55.1	385.6	0.17	0.06	56.0
All Vehicles		2035	0.0	1948 N1	0.0	0.570	3.3	NA	55.1	385.6	0.12	0.10	53.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [2017_am_base_modelled]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	53	0.0	53	0.0	0.874	54.3	LOS D	15.1	105.7	1.00	1.03	29.3
2	T1	299	0.0	299	0.0	0.874	48.8	LOS D	15.1	105.7	1.00	1.03	29.6
3	R2	240	0.0	240	0.0	0.874	54.5	LOS D	14.7	102.7	1.00	1.01	15.8
Approach		592	0.0	592	0.0	0.874	51.6	LOS D	15.1	105.7	1.00	1.02	25.0
East: RoadName													
4	L2	39	0.0	36	0.0	0.835	48.8	LOS D	16.2	113.6	1.00	0.98	30.0
5	T1	708	0.0	650	0.0	0.835	43.2	LOS D	16.3	114.1	1.00	0.98	34.1
6	R2	156	0.0	143	0.0	0.365	38.9	LOS C	5.5	38.3	0.90	0.78	35.1
Approach		903	0.0	829[N1]	0.0	0.835	42.7	LOS D	16.3	114.1	0.98	0.95	34.1
North: RoadName													
7	L2	158	0.0	158	0.0	0.655	46.0	LOS D	8.3	57.9	0.99	0.84	24.4
8	T1	208	0.0	208	0.0	0.655	40.4	LOS C	8.6	59.9	0.99	0.83	32.5
9	R2	22	0.0	22	0.0	0.655	45.9	LOS D	8.6	59.9	0.99	0.83	35.4
Approach		388	0.0	388	0.0	0.655	43.0	LOS D	8.6	59.9	0.99	0.83	29.8
West: RoadName													
10	L2	17	0.0	17	0.0	0.857	51.9	LOS D	15.4	108.0	1.00	1.01	33.5
11	T1	614	0.0	614	0.0	0.857	46.3	LOS D	15.5	108.2	1.00	1.01	24.0
12	R2	274	0.0	274	0.0	0.780	47.2	LOS D	12.5	87.4	1.00	0.90	30.0
Approach		904	0.0	904	0.0	0.857	46.7	LOS D	15.5	108.2	1.00	0.98	26.3
All Vehicles		2787	0.0	2713[N1]	0.0	0.874	46.0	LOS D	16.3	114.1	0.99	0.96	29.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	38.4	LOS D	0.1	0.1	0.92	0.92
P2	East Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
All Pedestrians		211	39.1	LOS D			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.

MOVEMENT SUMMARY

Site: Rawson [Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [2017_am_base_modelled]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	125	0.0	125	0.0	0.480	50.7	LOS D	11.6	81.3	0.78	0.74	17.9
2	T1	112	0.0	111	0.0	2.401	639.0	LOS F	31.9	223.1	0.88	1.20	1.8
3	R2	42	0.0	42	0.0	2.401	1319.4	LOS F	31.9	223.1	1.00	1.72	0.9
Approach		279	0.0	279	0.0	2.401	477.5	LOS F	31.9	223.1	0.85	1.07	2.4
East: Carlingford Rd													
4	L2	3	0.0	3	0.0	0.281	23.3	LOS B	13.0	91.2	0.51	0.45	13.1
5	T1	705	0.0	636	0.0	0.281	21.7	LOS B	16.3	114.2	0.60	0.53	11.6
Approach		708	0.0	639 N1	0.0	0.281	21.7	LOS B	16.3	114.2	0.60	0.53	11.6
North: Ray St													
7	L2	380	0.0	380	0.0	1.408	459.6	LOS F	23.3	163.2	1.00	1.57	0.9
8	T1	223	0.0	223	0.0	1.721	721.4	LOS F	23.3	163.2	1.00	2.01	0.5
9	R2	14	0.0	14	0.0	1.721	726.9	LOS F	23.3	163.2	1.00	2.01	0.5
Approach		617	0.0	617	0.0	1.721	560.2	LOS F	23.3	163.2	1.00	1.74	0.7
West: Carlingford Rd													
10	L2	11	0.0	11	0.0	0.900	62.1	LOS E	23.3	163.2	0.95	1.00	6.6
11	T1	1078	0.0	1078	0.0	0.900	55.0	LOS D	23.3	163.2	0.95	0.99	6.8
Approach		1088	0.0	1088	0.0	0.900	55.0	LOS D	23.3	163.2	0.95	0.99	6.8
All Vehicles		2693	0.0	2623 N1	0.0	2.401	210.6	LOS F	31.9	223.1	0.87	1.06	2.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [2017_am_base_modelled]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	471	0.0	471	0.0	0.401	32.0	LOS C	8.8	61.5	0.78	0.82	12.2
2	T1	91	0.0	91	0.0	0.998	118.0	LOS F	8.7	61.2	1.00	1.08	8.0
Approach		561	0.0	561	0.0	0.998	45.9	LOS D	8.8	61.5	0.82	0.87	10.5
East: Epping Rd													
4	L2	1	0.0	1	0.0	1.008	124.7	LOS F	44.5	311.7	1.00	1.31	6.0
5	T1	802	0.0	798	0.0	1.008	119.5	LOS F	44.5	311.7	1.00	1.31	5.9
Approach		803	0.0	799[N1]	0.0	1.008	119.5	LOS F	44.5	311.7	1.00	1.31	5.9
North: Landston Place													
7	L2	23	0.0	23	0.0	0.983	118.1	LOS F	17.8	124.9	1.00	1.16	5.2
8	T1	88	0.0	88	0.0	0.983	112.5	LOS F	17.8	124.9	1.00	1.16	5.2
9	R2	217	0.0	217	0.0	0.983	120.7	LOS F	17.8	124.9	1.00	1.13	5.0
Approach		328	0.0	328	0.0	0.983	118.3	LOS F	17.8	124.9	1.00	1.14	5.1
West: Bridge St													
10	L2	328	0.0	296	0.0	0.225	5.3	LOS A	2.3	16.4	0.17	0.59	42.1
11	T1	1980	0.0	1784	0.0	0.838	16.4	LOS B	14.0	97.9	0.70	0.66	13.6
12	R2	600	0.0	541	0.0	1.014	119.8	LOS F	14.0	97.9	1.00	1.26	2.3
Approach		2908	0.0	2621[N1]	0.0	1.014	36.5	LOS C	14.0	97.9	0.70	0.78	8.3
All Vehicles		4601	0.0	4309[N1]	0.0	1.014	59.3	LOS E	44.5	311.7	0.80	0.92	7.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [2017_am_base_modelled]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	51	0.0	51	0.0	0.528	75.5	LOS F	7.6	53.4	0.99	0.79	5.3
2	T1	57	0.0	57	0.0	0.528	70.0	LOS E	7.6	53.4	0.99	0.79	10.3
3	R2	128	0.0	128	0.0	1.295	350.2	LOS F	23.1	161.7	1.00	1.52	1.1
Approach		236	0.0	236	0.0	1.295	223.8	LOS F	23.1	161.7	1.00	1.19	2.2
East: Epping Rd													
4	L2	20	0.0	20	0.0	0.324	11.3	LOS A	7.4	51.8	0.45	0.41	39.1
5	T1	731	0.0	731	0.0	0.324	7.9	LOS A	7.6	53.5	0.52	0.46	33.6
6	R2	5	0.0	5	0.0	0.324	16.0	LOS B	7.6	53.5	0.59	0.52	36.0
Approach		756	0.0	756	0.0	0.324	8.1	LOS A	7.6	53.5	0.52	0.46	33.8
North: Essex St													
7	L2	7	0.0	7	0.0	0.297	80.9	LOS F	2.3	15.8	0.99	0.72	6.4
8	T1	109	0.0	109	0.0	1.282	273.5	LOS F	28.0	196.1	1.00	1.38	3.0
9	R2	77	0.0	77	0.0	1.282	333.0	LOS F	28.0	196.1	1.00	1.56	1.5
Approach		194	0.0	194	0.0	1.282	289.8	LOS F	28.0	196.1	1.00	1.43	2.4
West: Epping Rd													
10	L2	24	0.0	21	0.0	1.380	403.2	LOS F	28.0	195.8	1.00	2.21	2.3
11	T1	1972	0.0	1740	0.0	1.380	398.0	LOS F	28.0	195.8	1.00	2.21	1.2
12	R2	14	0.0	12	0.0	1.380	403.9	LOS F	28.0	195.8	1.00	2.21	2.0
Approach		2009	0.0	1774 N1	0.0	1.380	398.1	LOS F	28.0	195.8	1.00	2.21	1.2
All Vehicles		3195	0.0	2959 N1	0.0	1.380	277.5	LOS F	28.0	196.1	0.88	1.63	1.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [2017_am_base_modelled]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	20	0.0	20	0.0	0.021	7.0	LOS A	0.1	0.6	0.38	0.59	29.6
3	R2	37	0.0	37	0.0	12.071	10234.3	LOS F	35.1	246.0	1.00	1.37	0.0
Approach		57	0.0	57	0.0	12.071	6635.8	LOS F	35.1	246.0	0.78	1.09	0.1
East: Epping Rd													
4	L2	77	0.0	76	0.0	0.220	5.5	LOS A	0.0	0.0	0.00	0.11	53.3
5	T1	781	0.0	778	0.0	0.220	0.0	LOS A	0.0	0.0	0.00	0.05	56.8
Approach		858	0.0	854 N1	0.0	0.220	0.5	NA	0.0	0.0	0.00	0.05	56.5
West: Epping Rd													
11	T1	1973	0.0	1784	0.0	0.473	0.3	LOS A	11.7	81.6	0.04	0.01	54.2
12	R2	22	0.0	20	0.0	0.473	12.6	LOS A	11.7	81.6	0.08	0.01	49.3
Approach		1995	0.0	1804 N1	0.0	0.473	0.4	NA	11.7	81.6	0.04	0.01	54.2
All Vehicles		2909	0.0	2715 N1	0.0	12.071	139.4	NA	35.1	246.0	0.04	0.04	2.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [2017_am_base_modelled]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	64	0.0	53	0.0	0.538	10.6	LOS A	22.8	159.9	0.34	0.34	46.1
2	T1	2043	0.0	1681	0.0	0.538	5.0	LOS A	22.9	160.3	0.34	0.33	53.0
Approach		2107	0.0	1734 N1	0.0	0.538	5.2	LOS A	22.9	160.3	0.34	0.33	52.8
North: Epping Rd													
8	T1	615	0.0	615	0.0	0.190	3.3	LOS A	5.3	37.2	0.22	0.19	54.2
9	R2	208	0.0	208	0.0	1.788	839.3	LOS F	64.3	450.0	1.00	1.94	3.0
Approach		823	0.0	823	0.0	1.788	215.0	LOS F	64.3	450.0	0.42	0.64	8.2
West: Pembroke St													
10	L2	411	0.0	411	0.0	1.047	164.0	LOS F	25.8	180.3	1.00	1.10	12.7
Approach		411	0.0	411	0.0	1.047	164.0	LOS F	25.8	180.3	1.00	1.10	12.7
All Vehicles		3341	0.0	2968 N1	0.0	1.788	85.3	LOS F	64.3	450.0	0.45	0.52	18.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	83.3	LOS F	0.3	0.3	0.96	0.96
P3	North Full Crossing	53	84.3	LOS F	0.3	0.3	0.97	0.97
P4	West Full Crossing	53	4.5	LOS A	0.1	0.1	0.22	0.22
All Pedestrians		158	57.4	LOS E			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [2017_am_base_modelled]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Epping Rd													
5	T1	801	0.0	797	0.0	0.299	0.3	LOS A	0.2	1.4	0.01	0.00	55.5
6	R2	1	0.0	1	0.0	0.299	34.0	LOS C	0.2	1.4	0.02	0.00	52.2
Approach		802	0.0	798[N1]	0.0	0.299	0.3	NA	0.2	1.4	0.01	0.00	55.5
North: Smith St													
7	L2	2	0.0	2	0.0	0.008	11.1	LOS A	0.0	0.1	0.63	0.71	31.9
9	R2	6	0.0	6	0.0	0.737	537.5	LOS F	1.4	9.8	0.99	1.04	1.4
Approach		8	0.0	8	0.0	0.737	405.9	LOS F	1.4	9.8	0.90	0.95	1.8
West: Epping Rd													
10	L2	21	0.0	19	0.0	0.457	5.6	LOS A	32.9	230.3	0.00	0.01	55.8
11	T1	1982	0.0	1764	0.0	0.457	0.0	LOS A	36.0	251.7	0.00	0.01	59.6
Approach		2003	0.0	1782[N1]	0.0	0.457	0.1	NA	36.0	251.7	0.00	0.01	59.5
All Vehicles		2814	0.0	2589[N1]	0.0	0.737	1.5	NA	36.0	251.7	0.01	0.01	52.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 340.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [2017_pm_base_modelled]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 90 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Beecroft Rd													
1	L2	963	0.0	963	0.0	0.425	7.2	LOS A	11.1	77.6	0.12	0.57	45.7
2	T1	1203	0.0	1203	0.0	1.028	98.0	LOS F	47.4	331.5	1.00	1.52	11.0
Approach		2166	0.0	2166	0.0	1.028	57.6	LOS E	47.4	331.5	0.61	1.10	16.7
North: Beecroft Rd													
8	T1	628	0.0	628	0.0	0.290	11.3	LOS A	7.2	50.6	0.57	0.49	44.1
9	R2	149	0.0	149	0.0	1.035	118.6	LOS F	12.1	84.5	1.00	1.33	12.3
Approach		778	0.0	778	0.0	1.035	31.9	LOS C	12.1	84.5	0.65	0.65	29.5
West: Carlingford Rd													
10	L2	102	0.0	102	0.0	0.106	12.5	LOS A	1.5	10.7	0.41	0.65	18.5
12	R2	777	0.0	777	0.0	0.713	18.8	LOS B	11.3	79.4	0.62	0.75	13.6
Approach		879	0.0	879	0.0	0.713	18.1	LOS B	11.3	79.4	0.59	0.73	14.0
All Vehicles		3823	0.0	3823	0.0	1.035	43.3	LOS D	47.4	331.5	0.61	0.92	19.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [2017_pm_base_modelled]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Rawson St													
1	L2	26	0.0	26	0.0	0.209	6.0	LOS A	1.2	8.6	0.56	0.67	49.2
2	T1	85	0.0	85	0.0	0.209	6.3	LOS A	1.2	8.6	0.56	0.67	47.1
3	R2	99	0.0	99	0.0	0.209	10.9	LOS A	1.2	8.6	0.56	0.67	47.1
Approach		211	0.0	211	0.0	0.209	8.4	LOS A	1.2	8.6	0.56	0.67	47.4
East: Bridge St													
4	L2	9	0.0	9	0.0	0.271	4.8	LOS A	1.7	12.0	0.38	0.54	49.3
5	T1	223	0.0	223	0.0	0.271	5.0	LOS A	1.7	12.0	0.38	0.54	45.1
6	R2	107	0.0	107	0.0	0.271	9.6	LOS A	1.7	12.0	0.38	0.54	31.7
Approach		340	0.0	340	0.0	0.271	6.4	LOS A	1.7	12.0	0.38	0.54	42.6
North: Rawson St													
7	L2	39	0.0	39	0.0	0.150	4.7	LOS A	0.8	5.3	0.32	0.55	45.1
8	T1	74	0.0	74	0.0	0.150	4.9	LOS A	0.8	5.3	0.32	0.55	53.4
9	R2	67	0.0	67	0.0	0.150	9.6	LOS A	0.8	5.3	0.32	0.55	50.3
Approach		180	0.0	180	0.0	0.150	6.6	LOS A	0.8	5.3	0.32	0.55	51.2
West: Bridge St													
10	L2	86	0.0	86	0.0	0.144	5.3	LOS A	0.8	5.6	0.47	0.58	40.0
11	T1	48	0.0	48	0.0	0.144	5.5	LOS A	0.8	5.6	0.47	0.58	40.0
12	R2	22	0.0	22	0.0	0.144	10.2	LOS A	0.8	5.6	0.47	0.58	52.7
Approach		157	0.0	157	0.0	0.144	6.1	LOS A	0.8	5.6	0.47	0.58	43.6
All Vehicles		887	0.0	887	0.0	0.271	6.9	LOS A	1.7	12.0	0.43	0.58	46.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [2017_pm_base_modelled]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlingford Rd													
5	T1	1173	0.0	1168	0.0	0.299	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		1173	0.0	1168 N1	0.0	0.299	0.0	NA	0.0	0.0	0.00	0.00	59.9
North: RoadName													
7	L2	2	0.0	2	0.0	0.002	6.6	LOS A	0.0	0.1	0.34	0.54	49.0
9	R2	21	0.0	21	0.0	0.237	50.9	LOS D	0.7	5.2	0.94	0.99	22.7
Approach		23	0.0	23	0.0	0.237	46.9	LOS D	0.7	5.2	0.88	0.95	23.9
West: Carlingford Rd													
10	L2	72	0.0	72	0.0	0.187	5.6	LOS A	0.0	0.0	0.00	0.12	56.9
11	T1	653	0.0	653	0.0	0.187	0.0	LOS A	0.0	0.0	0.00	0.05	58.6
Approach		724	0.0	724	0.0	0.187	0.6	NA	0.0	0.0	0.00	0.06	58.3
All Vehicles		1920	0.0	1915 N1	0.0	0.299	0.8	NA	0.7	5.2	0.01	0.03	56.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [2017_pm_base_modelled]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	61	0.0	61	0.0	0.081	8.4	LOS A	0.3	2.0	0.50	0.73	43.4
3	R2	1	0.0	1	0.0	0.029	98.0	LOS F	0.1	0.6	0.96	0.98	11.0
Approach		62	0.0	62	0.0	0.081	9.9	LOS A	0.3	2.0	0.51	0.73	41.4
East: Carlingford Rd													
4	L2	64	0.0	64	0.0	0.305	5.6	LOS A	0.0	0.0	0.00	0.06	56.9
5	T1	1128	0.0	1124	0.0	0.305	0.0	LOS A	0.0	0.0	0.00	0.03	59.2
Approach		1193	0.0	1188[N1]	0.0	0.305	0.3	NA	0.0	0.0	0.00	0.03	58.9
North: Kent St													
7	L2	2	0.0	2	0.0	0.002	7.6	LOS A	0.0	0.1	0.45	0.56	48.2
Approach		2	0.0	2	0.0	0.002	7.6	LOS A	0.0	0.1	0.45	0.56	48.2
West: Carlingford Rd													
11	T1	720	0.0	720	0.0	0.246	2.0	LOS A	1.6	11.0	0.16	0.04	54.8
12	R2	40	0.0	40	0.0	0.246	18.4	LOS B	1.6	11.0	0.49	0.12	50.2
Approach		760	0.0	760	0.0	0.246	2.9	NA	1.6	11.0	0.18	0.04	54.4
All Vehicles		2017	0.0	2012[N1]	0.0	0.305	1.6	NA	1.6	11.0	0.08	0.06	56.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [2017_pm_base_modelled]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 130 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	140	0.0	140	0.0	0.890	70.3	LOS E	26.8	187.6	1.00	1.02	25.1
2	T1	415	0.0	415	0.0	0.890	64.8	LOS E	26.8	187.6	1.00	1.01	25.3
3	R2	202	0.0	202	0.0	0.890	70.4	LOS E	26.6	186.2	1.00	1.00	13.2
Approach		757	0.0	757	0.0	0.890	67.3	LOS E	26.8	187.6	1.00	1.01	22.7
East: RoadName													
4	L2	40	0.0	40	0.0	0.891	63.1	LOS E	36.9	258.0	1.00	1.02	25.9
5	T1	934	0.0	930	0.0	0.891	57.3	LOS E	36.9	258.0	0.98	1.01	30.0
6	R2	216	0.0	215	0.0	0.376	43.3	LOS D	10.6	74.4	0.83	0.80	33.6
Approach		1189	0.0	1185 N1	0.0	0.891	54.9	LOS D	36.9	258.0	0.95	0.97	30.4
North: RoadName													
7	L2	91	0.0	91	0.0	0.883	76.7	LOS F	15.6	109.4	1.00	1.00	17.8
8	T1	282	0.0	282	0.0	0.883	71.2	LOS F	15.7	109.9	1.00	1.00	24.1
9	R2	69	0.0	69	0.0	0.883	76.7	LOS F	15.7	109.9	1.00	1.00	27.1
Approach		442	0.0	442	0.0	0.883	73.2	LOS F	15.7	109.9	1.00	1.00	23.5
West: RoadName													
10	L2	16	0.0	16	0.0	0.853	71.4	LOS F	17.4	121.9	1.00	0.97	28.4
11	T1	488	0.0	488	0.0	0.853	65.8	LOS E	17.4	121.9	1.00	0.97	19.2
12	R2	222	0.0	222	0.0	0.777	66.7	LOS E	14.4	100.7	1.00	0.88	25.0
Approach		726	0.0	726	0.0	0.853	66.2	LOS E	17.4	121.9	1.00	0.94	21.4
All Vehicles		3115	0.0	3110 N1	0.0	0.891	63.2	LOS E	36.9	258.0	0.98	0.98	25.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	40.1	LOS E	0.2	0.2	0.79	0.79
P2	East Full Crossing	53	59.3	LOS E	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	57.4	LOS E	0.2	0.2	0.94	0.94
P4	West Full Crossing	53	51.9	LOS E	0.2	0.2	0.89	0.89
All Pedestrians		211	52.2	LOS E			0.89	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.

MOVEMENT SUMMARY

Site: Rawson [Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [2017_pm_base_modelled]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 90 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	65	0.0	65	0.0	0.070	15.3	LOS B	1.3	9.1	0.49	0.68	34.5
2	T1	149	0.0	149	0.0	0.272	12.3	LOS A	5.1	35.8	0.58	0.57	35.9
3	R2	64	0.0	64	0.0	0.272	17.9	LOS B	5.1	35.8	0.58	0.57	35.9
Approach		279	0.0	279	0.0	0.272	14.3	LOS A	5.1	35.8	0.56	0.59	35.5
East: Carlingford Rd													
4	L2	22	0.0	22	0.0	0.913	52.5	LOS D	16.3	114.2	1.00	1.12	5.9
5	T1	1089	0.0	1085	0.0	0.913	47.8	LOS D	16.3	114.2	1.00	1.12	5.9
Approach		1112	0.0	1107 N1	0.0	0.913	47.9	LOS D	16.3	114.2	1.00	1.12	5.9
North: Ray St													
7	L2	193	0.0	193	0.0	0.223	16.4	LOS B	4.3	29.9	0.54	0.72	17.8
8	T1	109	0.0	109	0.0	0.130	10.7	LOS A	2.7	18.8	0.52	0.46	22.7
9	R2	17	0.0	17	0.0	0.130	16.2	LOS B	2.7	18.8	0.52	0.46	22.7
Approach		319	0.0	319	0.0	0.223	14.4	LOS A	4.3	29.9	0.53	0.62	19.5
West: Carlingford Rd													
10	L2	33	0.0	33	0.0	0.585	34.1	LOS C	11.3	79.1	0.90	0.77	11.6
11	T1	623	0.0	623	0.0	0.585	28.5	LOS B	13.3	92.8	0.90	0.77	11.7
Approach		656	0.0	656	0.0	0.585	28.7	LOS C	13.3	92.8	0.90	0.77	11.7
All Vehicles		2365	0.0	2360 N1	0.0	0.913	34.1	LOS C	16.3	114.2	0.86	0.89	11.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [2017_pm_base_modelled]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	553	0.0	553	0.0	0.824	69.7	LOS E	16.4	114.5	1.00	1.04	6.3
2	T1	60	0.0	60	0.0	0.882	90.8	LOS F	5.0	35.0	1.00	0.92	10.0
Approach		613	0.0	613	0.0	0.882	71.8	LOS F	16.4	114.5	1.00	1.03	6.8
East: Epping Rd													
4	L2	1	0.0	1	0.0	0.891	45.5	LOS D	46.6	326.4	0.97	0.94	14.9
5	T1	1806	0.0	1806	0.0	0.891	39.9	LOS C	46.6	326.4	0.97	0.94	14.9
Approach		1807	0.0	1807	0.0	0.891	39.9	LOS C	46.6	326.4	0.97	0.94	14.9
North: Landston Place													
7	L2	39	0.0	39	0.0	0.867	86.8	LOS F	13.9	97.1	1.00	0.96	6.7
8	T1	37	0.0	37	0.0	0.867	81.2	LOS F	13.9	97.1	1.00	0.96	6.7
9	R2	269	0.0	269	0.0	0.867	86.9	LOS F	13.9	97.1	1.00	0.94	6.7
Approach		345	0.0	345	0.0	0.867	86.3	LOS F	13.9	97.1	1.00	0.95	6.7
West: Bridge St													
10	L2	244	0.0	244	0.0	0.182	5.1	LOS A	1.6	11.0	0.14	0.58	42.6
11	T1	905	0.0	905	0.0	0.394	7.5	LOS A	13.9	97.3	0.39	0.35	23.3
12	R2	257	0.0	257	0.0	0.889	83.4	LOS F	14.0	97.9	1.00	1.02	3.2
Approach		1406	0.0	1406	0.0	0.889	21.0	LOS B	14.0	97.9	0.46	0.51	14.1
All Vehicles		4172	0.0	4171 N1	0.0	0.891	42.1	LOS C	46.6	326.4	0.81	0.81	11.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [2017_pm_base_modelled]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: High St													
1	L2	31	0.0	31	0.0	0.028	1.4	LOS A	0.1	0.9	0.40	0.22	48.7
Approach		31	0.0	31	0.0	0.028	1.4	NA	0.1	0.9	0.40	0.22	48.7
East: Bridge													
4	L2	251	0.0	251	0.0	0.704	0.1	LOS A	0.0	0.0	0.00	0.00	54.1
5	T1	334	0.0	334	0.0	0.704	0.1	LOS A	0.0	0.0	0.00	0.00	46.8
6	R2	2045	0.0	2045	0.0	0.704	0.1	LOS A	0.0	0.0	0.00	0.00	52.4
Approach		2629	0.0	2629	0.0	0.704	0.1	NA	0.0	0.0	0.00	0.00	52.3
North: Beecroft Rd													
7	L2	1405	0.0	1405	0.0	0.289	0.0	LOS A	7.0	49.1	0.00	0.00	59.9
Approach		1405	0.0	1405	0.0	0.289	0.0	NA	7.0	49.1	0.00	0.00	59.9
West: Bridge St													
10	L2	120	0.0	120	0.0	0.184	4.8	LOS A	0.8	5.7	0.62	0.58	22.4
Approach		120	0.0	120	0.0	0.184	4.8	LOS A	0.8	5.7	0.62	0.58	22.4
All Vehicles		4185	0.0	4185	0.0	0.704	0.2	NA	7.0	49.1	0.02	0.02	54.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [2017_pm_base_modelled]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 130 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	43	0.0	43	0.0	0.559	66.2	LOS E	6.7	47.1	0.99	0.79	6.0
2	T1	65	0.0	65	0.0	0.559	60.6	LOS E	6.7	47.1	0.99	0.79	11.4
3	R2	195	0.0	195	0.0	0.909	81.9	LOS F	14.3	100.1	1.00	0.98	4.7
Approach		303	0.0	303	0.0	0.909	75.1	LOS F	14.3	100.1	1.00	0.91	6.2
East: Epping Rd													
4	L2	11	0.0	11	0.0	0.879	26.1	LOS B	29.8	208.6	0.90	0.89	31.1
5	T1	1548	0.0	1548	0.0	0.879	21.0	LOS B	29.8	208.6	0.90	0.89	28.4
6	R2	4	0.0	4	0.0	0.879	27.0	LOS B	29.3	205.1	0.90	0.90	32.2
Approach		1563	0.0	1563	0.0	0.879	21.1	LOS B	29.8	208.6	0.90	0.89	28.5
North: Essex St													
7	L2	8	0.0	8	0.0	0.206	68.3	LOS E	1.9	13.2	0.97	0.71	10.1
8	T1	67	0.0	67	0.0	0.890	73.1	LOS F	7.9	55.0	0.99	0.90	12.0
9	R2	62	0.0	62	0.0	0.890	83.7	LOS F	7.9	55.0	1.00	0.99	8.2
Approach		138	0.0	138	0.0	0.890	77.5	LOS F	7.9	55.0	0.99	0.92	10.2
West: Epping Rd													
10	L2	65	0.0	65	0.0	0.503	12.9	LOS A	11.7	81.8	0.59	0.55	37.5
11	T1	827	0.0	824	0.0	0.503	10.6	LOS A	11.7	81.8	0.66	0.60	25.3
12	R2	35	0.0	35	0.0	0.503	22.5	LOS B	8.7	60.8	0.81	0.70	24.7
Approach		927	0.0	924 N1	0.0	0.503	11.2	LOS A	11.7	81.8	0.66	0.60	26.4
All Vehicles		2932	0.0	2928 N1	0.0	0.909	26.2	LOS B	29.8	208.6	0.84	0.81	21.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [2017_pm_base_modelled]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	168	0.0	168	0.0	0.576	15.9	LOS B	1.8	12.9	0.66	0.99	18.3
3	R2	23	0.0	23	0.0	1.195	562.6	LOS F	6.1	42.6	1.00	1.28	0.7
Approach		192	0.0	192	0.0	1.195	82.0	LOS F	6.1	42.6	0.70	1.03	4.5
East: Epping Rd													
4	L2	19	0.0	19	0.0	0.424	5.5	LOS A	3.6	25.4	0.00	0.01	58.9
5	T1	1635	0.0	1635	0.0	0.424	0.0	LOS A	4.3	30.4	0.00	0.01	59.4
Approach		1654	0.0	1654	0.0	0.424	0.1	NA	4.3	30.4	0.00	0.01	59.4
West: Epping Rd													
11	T1	904	0.0	904	0.0	0.343	3.4	LOS A	41.0	287.2	0.18	0.05	29.5
12	R2	57	0.0	57	0.0	0.343	23.3	LOS B	41.0	287.2	0.71	0.18	12.1
Approach		961	0.0	961	0.0	0.343	4.6	NA	41.0	287.2	0.22	0.06	27.2
All Vehicles		2806	0.0	2806	0.0	1.195	7.2	NA	41.0	287.2	0.12	0.09	27.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [2017_pm_base_modelled]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 90 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	161	0.0	161	0.0	0.373	11.0	LOS A	8.7	60.7	0.42	0.49	47.4
2	T1	869	0.0	867	0.0	0.373	5.4	LOS A	8.8	61.6	0.42	0.42	53.3
Approach		1031	0.0	1027 N1	0.0	0.373	6.3	LOS A	8.8	61.6	0.42	0.43	52.6
North: Epping Rd													
8	T1	1471	0.0	1471	0.0	0.530	6.4	LOS A	14.8	103.4	0.50	0.46	49.7
9	R2	175	0.0	175	0.0	0.537	16.9	LOS B	4.6	32.5	0.62	0.76	42.5
Approach		1645	0.0	1645	0.0	0.537	7.5	LOS A	14.8	103.4	0.51	0.49	48.5
West: Pembroke St													
10	L2	143	0.0	143	0.0	0.248	42.5	LOS D	2.8	19.9	0.92	0.75	30.4
Approach		143	0.0	143	0.0	0.248	42.5	LOS D	2.8	19.9	0.92	0.75	30.4
All Vehicles		2819	0.0	2816 N1	0.0	0.537	8.8	LOS A	14.8	103.4	0.50	0.48	48.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	6.8	LOS A	0.1	0.1	0.39	0.39
All Pedestrians		158	28.5	LOS C			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [2017_pm_base_modelled]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Epping Rd													
5	T1	1804	0.0	1804	0.0	0.464	0.0	LOS A	11.7	81.6	0.00	0.00	59.5
6	R2	1	0.0	1	0.0	0.464	15.3	LOS B	11.7	81.6	0.01	0.00	53.9
Approach		1805	0.0	1805	0.0	0.464	0.0	NA	11.7	81.6	0.00	0.00	59.5
North: Smith St													
7	L2	19	0.0	19	0.0	0.023	7.7	LOS A	0.1	0.6	0.45	0.64	37.3
9	R2	2	0.0	2	0.0	1.132	1732.1	LOS F	1.5	10.7	1.00	1.05	0.4
Approach		21	0.0	21	0.0	1.132	180.1	LOS F	1.5	10.7	0.51	0.68	3.8
West: Epping Rd													
10	L2	2	0.0	2	0.0	0.242	5.5	LOS A	0.0	0.0	0.00	0.00	56.0
11	T1	942	0.0	942	0.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		944	0.0	944	0.0	0.242	0.0	NA	0.0	0.0	0.00	0.00	59.9
All Vehicles		2771	0.0	2771	0.0	1.132	1.4	NA	11.7	81.6	0.01	0.01	49.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 5.0 %
Number of Iterations: 30 (maximum specified: 30)

Appendix K

2026 SIDRA Results

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [2026_am_rms]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	702	0.0	544	0.0	0.171	6.1	LOS A	2.6	18.1	0.06	0.55	47.3
2	T1	1343	0.0	1041	0.0	8.897	7142.1	LOS F	81.6	571.2	1.00	2.48	0.2
Approach		2045	0.0	1585 N1	0.0	8.897	4692.4	LOS F	81.6	571.2	0.68	1.81	0.3
North: Beecroft Rd													
8	T1	2157	0.0	2157	0.0	5.686	4267.0	LOS F	116.6	816.0	1.00	3.38	0.4
9	R2	911	0.0	911	0.0	14.709	12387.9	LOS F	116.6	816.0	1.00	2.62	0.1
Approach		3067	0.0	3067	0.0	14.709	6677.6	LOS F	116.6	816.0	1.00	3.16	0.3
West: Carlingford Rd													
10	L2	265	0.0	162	0.0	0.097	4.8	LOS A	0.6	3.9	0.06	0.55	30.7
12	R2	2964	0.0	1808	0.0	0.837	8.9	LOS A	14.0	97.9	0.31	0.67	21.3
Approach		3229	0.0	1970 N1	0.0	0.837	8.6	LOS A	14.0	97.9	0.29	0.66	21.8
All Vehicles		8342	0.0	6622 N1	0.0	14.709	4218.7	LOS F	116.6	816.0	0.71	2.09	0.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [2026_am_rms]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: High St													
1	L2	14	0.0	14	0.0	0.011	0.8	LOS A	0.1	0.4	0.30	0.12	49.3
Approach		14	0.0	14	0.0	0.011	0.8	NA	0.1	0.4	0.30	0.12	49.3
East: Bridge													
4	L2	223	0.0	167	0.0	0.440	0.0	LOS A	21.3	149.1	0.00	0.00	54.2
5	T1	272	0.0	203	0.0	0.440	0.0	LOS A	21.3	149.1	0.00	0.00	46.7
6	R2	1702	0.0	1274	0.0	0.440	0.0	LOS A	21.3	149.1	0.00	0.00	52.4
Approach		2197	0.0	1644 N1	0.0	0.440	0.0	NA	21.3	149.1	0.00	0.00	52.4
North: Beecroft Rd													
7	L2	5121	0.0	2235	0.0	0.460	0.1	LOS A	81.6	571.2	0.00	0.00	59.8
Approach		5121	0.0	2235 N1	0.0	0.460	0.1	NA	81.6	571.2	0.00	0.00	59.8
West: Bridge St													
10	L2	322	0.0	280	0.0	0.625	6.3	LOS A	2.9	20.3	0.54	0.61	20.5
Approach		322	0.0	280 N1	0.0	0.625	6.3	LOS A	2.9	20.3	0.54	0.61	20.5
All Vehicles		7654	0.0	4172 N1	0.0	0.625	0.5	NA	81.6	571.2	0.04	0.04	55.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [2026_am_rms]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Rawson St													
1	L2	2	0.0	2	0.0	0.611	5.2	LOS A	2.7	19.0	0.48	0.62	49.5
2	T1	253	0.0	253	0.0	0.611	5.4	LOS A	2.7	19.0	0.48	0.62	47.5
3	R2	234	0.0	234	0.0	0.611	10.1	LOS A	2.7	19.0	0.48	0.62	47.5
Approach		488	0.0	488	0.0	0.611	7.6	LOS A	2.7	19.0	0.48	0.62	47.5
East: Bridge St													
4	L2	19	0.0	15	0.0	0.211	4.2	LOS A	0.8	5.8	0.22	0.52	49.7
5	T1	131	0.0	100	0.0	0.211	4.4	LOS A	0.8	5.8	0.22	0.52	45.8
6	R2	116	0.0	89	0.0	0.211	9.0	LOS A	0.8	5.8	0.22	0.52	32.5
Approach		265	0.0	203[N1]	0.0	0.211	6.4	LOS A	0.8	5.8	0.22	0.52	42.5
North: Rawson St													
7	L2	96	0.0	41	0.0	0.087	5.4	LOS A	0.5	3.2	0.48	0.59	39.2
8	T1	66	0.0	28	0.0	0.087	5.7	LOS A	0.5	3.2	0.48	0.59	52.2
9	R2	55	0.0	23	0.0	0.087	10.3	LOS A	0.5	3.2	0.48	0.59	47.8
Approach		217	0.0	92[N1]	0.0	0.087	6.7	LOS A	0.5	3.2	0.48	0.59	47.4
West: Bridge St													
10	L2	174	0.0	174	0.0	0.522	8.7	LOS A	2.3	16.4	0.72	0.83	35.7
11	T1	84	0.0	84	0.0	0.522	8.9	LOS A	2.3	16.4	0.72	0.83	35.7
12	R2	16	0.0	16	0.0	0.522	13.5	LOS A	2.3	16.4	0.72	0.83	50.3
Approach		274	0.0	274	0.0	0.522	9.0	LOS A	2.3	16.4	0.72	0.83	37.6
All Vehicles		1244	0.0	1057[N1]	0.0	0.611	7.7	LOS A	2.7	19.0	0.49	0.66	44.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [2026_am_rms]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlingford Rd													
5	T1	1292	0.0	492	0.0	0.126	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1292	0.0	492[N1]	0.0	0.126	0.0	NA	0.0	0.0	0.00	0.00	60.0
North: RoadName													
7	L2	91	0.0	91	0.0	0.510	19.1	LOS B	1.0	7.1	0.79	0.99	37.1
9	R2	155	0.0	155	0.0	25.789	22456.3	LOS F	152.2	1065.6	1.00	1.38	0.1
Approach		245	0.0	245	0.0	25.789	14174.8	LOS F	152.2	1065.6	0.92	1.24	0.1
West: Carlingford Rd													
10	L2	64	0.0	45	0.0	0.521	5.6	LOS A	79.3	554.9	0.00	0.03	57.7
11	T1	2842	0.0	1984	0.0	0.521	0.1	LOS A	79.3	554.9	0.00	0.01	59.5
Approach		2906	0.0	2029[N1]	0.0	0.521	0.2	NA	79.3	554.9	0.00	0.01	59.4
All Vehicles		4443	0.0	2766[N1]	0.0	25.789	1257.2	NA	152.2	1065.6	0.08	0.12	0.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [2026_am_rms]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	121	0.0	121	0.0	0.111	6.5	LOS A	0.4	2.9	0.31	0.59	45.8
3	R2	57	0.0	57	0.0	18.947	16359.5	LOS F	55.4	388.1	1.00	1.37	0.1
Approach		178	0.0	178	0.0	18.947	5231.7	LOS F	55.4	388.1	0.53	0.84	0.2
East: Carlingford Rd													
4	L2	147	0.0	53	0.0	0.139	5.5	LOS A	0.0	0.0	0.00	0.12	56.3
5	T1	1337	0.0	485	0.0	0.139	0.0	LOS A	0.0	0.0	0.00	0.05	58.6
Approach		1484	0.0	538[N1]	0.0	0.139	0.6	NA	0.0	0.0	0.00	0.06	58.2
North: Kent St													
7	L2	197	0.0	197	0.0	1.250	264.9	LOS F	28.8	201.3	1.00	4.20	6.2
Approach		197	0.0	197	0.0	1.250	264.9	LOS F	28.8	201.3	1.00	4.20	6.2
West: Carlingford Rd													
11	T1	2642	0.0	1836	0.0	0.572	1.0	LOS A	52.2	365.3	0.16	0.06	56.6
12	R2	236	0.0	164	0.0	0.572	11.4	LOS A	52.2	365.3	0.40	0.15	53.6
Approach		2878	0.0	1999[N1]	0.0	0.572	1.9	NA	52.2	365.3	0.18	0.07	56.1
All Vehicles		4737	0.0	2912[N1]	0.0	18.947	338.9	NA	55.4	388.1	0.22	0.39	4.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [2026_am_rms]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	221	0.0	221	0.0	1.007	122.0	LOS F	37.5	262.7	1.00	1.17	17.2
2	T1	147	0.0	147	0.0	1.007	116.5	LOS F	37.5	262.7	1.00	1.17	17.4
3	R2	445	0.0	445	0.0	1.563	575.5	LOS F	102.5	717.6	1.00	1.88	1.9
Approach		814	0.0	814	0.0	1.563	369.2	LOS F	102.5	717.6	1.00	1.56	4.7
East: RoadName													
4	L2	58	0.0	24	0.0	1.406	437.3	LOS F	58.0	406.0	1.00	1.95	5.4
5	T1	1327	0.0	559	0.0	1.406	431.7	LOS F	58.2	407.2	1.00	1.95	6.7
6	R2	74	0.0	31	0.0	0.157	72.0	LOS F	2.1	14.7	0.94	0.73	26.2
Approach		1459	0.0	614[N1]	0.0	1.406	413.8	LOS F	58.2	407.2	1.00	1.89	7.0
North: RoadName													
7	L2	222	0.0	222	0.0	1.458	482.5	LOS F	69.2	484.3	1.00	1.98	3.5
8	T1	321	0.0	321	0.0	1.458	476.8	LOS F	70.2	491.5	1.00	2.05	5.3
9	R2	122	0.0	122	0.0	1.458	482.4	LOS F	70.2	491.5	1.00	2.09	6.5
Approach		665	0.0	665	0.0	1.458	479.7	LOS F	70.2	491.5	1.00	2.03	5.0
West: RoadName													
10	L2	53	0.0	53	0.0	1.577	582.2	LOS F	302.7	2119.0	1.00	2.74	5.6
11	T1	2194	0.0	2194	0.0	1.577	578.4	LOS F	302.7	2119.0	1.00	2.75	3.0
12	R2	121	0.0	121	0.0	0.155	34.0	LOS C	5.4	37.7	0.66	0.74	34.7
Approach		2367	0.0	2367	0.0	1.577	550.7	LOS F	302.7	2119.0	0.98	2.65	3.3
All Vehicles		5305	0.0	4461[N1]	0.0	1.577	488.1	LOS F	302.7	2119.0	0.99	2.25	4.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	32.7	LOS D	0.1	0.1	0.66	0.66
P4	West Full Crossing	53	61.8	LOS F	0.2	0.2	0.91	0.91
All Pedestrians		211	58.3	LOS E			0.87	0.87

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.

MOVEMENT SUMMARY

Site: Rawson [Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [2026_am_rms]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	48	0.0	46	0.0	2.033	997.3	LOS F	35.0	244.8	1.00	2.14	0.6
2	T1	207	0.0	197	0.0	2.033	991.7	LOS F	35.0	244.8	1.00	2.14	0.6
3	R2	286	0.0	272	0.0	13.456	11247.2	LOS F	35.0	244.8	1.00	1.89	0.1
Approach		542	0.0	515 N1	0.0	13.456	6408.7	LOS F	35.0	244.8	1.00	2.01	0.1
East: Carlingford Rd													
4	L2	420	0.0	157	0.0	0.188	6.7	LOS A	3.8	26.8	0.16	0.40	29.8
5	T1	1192	0.0	445	0.0	0.188	3.3	LOS A	6.7	46.8	0.24	0.29	31.8
Approach		1612	0.0	602 N1	0.0	0.188	4.2	LOS A	6.7	46.8	0.22	0.32	31.3
North: Ray St													
7	L2	57	0.0	57	0.0	0.722	97.1	LOS F	7.3	50.9	1.00	0.86	4.1
8	T1	77	0.0	77	0.0	1.958	675.9	LOS F	23.3	163.2	1.00	1.44	0.6
9	R2	51	0.0	50	0.0	1.958	926.2	LOS F	23.3	163.2	1.00	1.68	0.4
Approach		184	0.0	184	0.0	1.958	566.0	LOS F	23.3	163.2	1.00	1.33	0.7
West: Carlingford Rd													
10	L2	46	0.0	33	0.0	1.261	307.1	LOS F	23.3	163.2	1.00	1.90	1.3
11	T1	2886	0.0	2032	0.0	1.261	301.7	LOS F	23.3	163.2	1.00	1.91	1.3
Approach		2933	0.0	2064 N1	0.0	1.261	301.8	LOS F	23.3	163.2	1.00	1.91	1.3
All Vehicles		5271	0.0	3366 N1	0.0	13.456	1197.8	LOS F	35.0	244.8	0.86	1.61	0.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [2026_am_rms]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	891	0.0	891	0.0	0.787	44.6	LOS D	20.6	144.2	0.96	0.96	9.3
2	T1	271	0.0	271	0.0	1.492	506.8	LOS F	28.0	195.8	1.00	2.02	2.0
Approach		1161	0.0	1161	0.0	1.492	152.3	LOS F	28.0	195.8	0.97	1.20	3.7
East: Epping Rd													
4	L2	2	0.0	2	0.0	0.002	34.2	LOS C	0.1	0.5	0.62	0.61	16.5
5	T1	1327	0.0	1146	0.0	1.493	512.9	LOS F	46.6	326.4	1.00	2.51	1.5
Approach		1329	0.0	1147 N1	0.0	1.493	512.2	LOS F	46.6	326.4	1.00	2.51	1.5
North: Landston Place													
7	L2	1	0.0	1	0.0	1.495	514.0	LOS F	54.3	380.1	1.00	1.98	1.2
8	T1	503	0.0	503	0.0	1.495	508.4	LOS F	54.5	381.7	1.00	1.98	1.2
Approach		504	0.0	504	0.0	1.495	508.4	LOS F	54.5	381.7	1.00	1.98	1.2
West: Bridge St													
10	L2	348	0.0	150	0.0	0.122	6.5	LOS A	1.8	12.7	0.22	0.60	39.8
11	T1	3298	0.0	1424	0.0	0.634	12.9	LOS A	14.0	97.9	0.57	0.52	16.2
12	R2	1475	0.0	637	0.0	1.508	524.9	LOS F	14.0	97.9	1.00	2.47	0.5
Approach		5121	0.0	2211 N1	0.0	1.508	159.9	LOS F	14.0	97.9	0.67	1.09	1.9
All Vehicles		8116	0.0	5024 N1	0.0	1.508	273.6	LOS F	54.5	381.7	0.85	1.53	1.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [2026_am_rms]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	21	0.0	21	0.0	0.113	72.6	LOS F	1.4	10.0	0.94	0.71	5.2
2	T1	44	0.0	44	0.0	0.227	68.1	LOS E	3.0	21.2	0.96	0.72	10.8
3	R2	252	0.0	252	0.0	1.370	406.8	LOS F	48.3	338.0	1.00	1.59	1.0
Approach		317	0.0	317	0.0	1.370	337.3	LOS F	48.3	338.0	0.99	1.41	1.3
East: Epping Rd													
4	L2	31	0.0	29	0.0	0.875	56.6	LOS E	26.1	183.0	1.00	0.98	14.0
5	T1	817	0.0	788	0.0	0.875	51.0	LOS D	26.2	183.5	1.00	0.98	10.2
Approach		847	0.0	817 N1	0.0	0.875	51.2	LOS D	26.2	183.5	1.00	0.98	10.4
North: Essex St													
7	L2	24	0.0	24	0.0	0.026	25.3	LOS B	0.9	6.1	0.53	0.67	20.3
8	T1	53	0.0	53	0.0	0.054	20.1	LOS B	1.9	13.4	0.54	0.42	29.3
9	R2	623	0.0	623	0.0	1.376	415.5	LOS F	128.2	897.4	1.00	1.68	1.8
Approach		700	0.0	700	0.0	1.376	372.3	LOS F	128.2	897.4	0.95	1.55	2.0
West: Epping Rd													
10	L2	108	0.0	43	0.0	1.359	380.8	LOS F	28.0	195.8	1.00	2.05	2.3
11	T1	3083	0.0	1227	0.0	1.359	375.3	LOS F	28.0	195.8	1.00	2.05	1.2
Approach		3192	0.0	1270 N1	0.0	1.359	375.5	LOS F	28.0	195.8	1.00	2.05	1.2
All Vehicles		5056	0.0	3104 N1	0.0	1.376	285.5	LOS F	128.2	897.4	0.99	1.59	2.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [2026_am_rms]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	39	0.0	39	0.0	0.048	8.3	LOS A	0.2	1.4	0.50	0.65	27.4
Approach		39	0.0	39	0.0	0.048	8.3	LOS A	0.2	1.4	0.50	0.65	27.4
East: Epping Rd													
4	L2	174	0.0	149	0.0	0.080	5.5	LOS A	0.0	0.0	0.00	0.58	35.7
5	T1	1276	0.0	1098	0.0	0.282	0.0	LOS A	28.0	195.8	0.00	0.00	59.9
Approach		1449	0.0	1247 N1	0.0	0.282	0.7	NA	28.0	195.8	0.00	0.07	55.3
West: Epping Rd													
11	T1	3192	0.0	1334	0.0	0.342	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		3192	0.0	1334 N1	0.0	0.342	0.0	NA	11.7	81.6	0.00	0.00	59.9
All Vehicles		4680	0.0	2620 N1	0.0	0.342	0.4	NA	28.0	195.8	0.01	0.04	55.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [2026_am_rms]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	8	0.0	3	0.0	0.349	9.4	LOS A	11.5	80.8	0.26	0.24	48.2
2	T1	3392	0.0	1122	0.0	0.349	3.9	LOS A	11.5	80.8	0.26	0.24	54.5
Approach		3400	0.0	1125 N1	0.0	0.349	3.9	LOS A	11.5	80.8	0.26	0.24	54.5
North: Epping Rd													
8	T1	742	0.0	742	0.0	0.230	3.4	LOS A	6.7	46.8	0.23	0.20	54.0
9	R2	299	0.0	299	0.0	1.006	137.4	LOS F	44.6	312.2	1.00	1.16	14.7
Approach		1041	0.0	1041	0.0	1.006	41.9	LOS C	44.6	312.2	0.45	0.48	27.1
West: Pembroke St													
10	L2	848	0.0	848	0.0	2.164	1110.7	LOS F	133.3	933.1	1.00	2.00	2.3
Approach		848	0.0	848	0.0	2.164	1110.7	LOS F	133.3	933.1	1.00	2.00	2.3
All Vehicles		5289	0.0	3014 N1	0.0	2.164	328.5	LOS F	133.3	933.1	0.54	0.82	6.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	83.3	LOS F	0.3	0.3	0.96	0.96
P3	North Full Crossing	53	84.3	LOS F	0.3	0.3	0.97	0.97
P4	West Full Crossing	53	4.5	LOS A	0.1	0.1	0.22	0.22
All Pedestrians		158	57.4	LOS E			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [2026_am_rms]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Epping Rd													
5	T1	1327	0.0	1162	0.0	0.199	0.0	LOS A	11.7	81.6	0.00	0.00	60.0
Approach		1327	0.0	1162[N1]	0.0	0.199	0.0	NA	11.7	81.6	0.00	0.00	60.0
North: Smith St													
7	L2	13	0.0	13	0.0	0.037	9.0	LOS A	0.1	0.5	0.53	0.71	35.1
Approach		13	0.0	13	0.0	0.037	9.0	LOS A	0.1	0.5	0.53	0.71	35.1
West: Epping Rd													
10	L2	120	0.0	51	0.0	0.358	5.6	LOS A	46.6	326.4	0.00	0.04	55.2
11	T1	3179	0.0	1342	0.0	0.358	0.0	LOS A	46.6	326.4	0.00	0.02	59.0
Approach		3299	0.0	1392[N1]	0.0	0.358	0.2	NA	46.6	326.4	0.00	0.02	58.7
All Vehicles		4639	0.0	2567[N1]	0.0	0.358	0.2	NA	46.6	326.4	0.00	0.02	58.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 442.5 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [2026_pm_rms]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: High St													
1	L2	48	0.0	48	0.0	0.041	1.0	LOS A	0.2	1.4	0.34	0.17	49.0
Approach		48	0.0	48	0.0	0.041	1.0	NA	0.2	1.4	0.34	0.17	49.0
East: Bridge													
4	L2	313	0.0	152	0.0	0.539	0.0	LOS A	21.3	149.1	0.00	0.00	54.4
5	T1	501	0.0	243	0.0	0.539	0.0	LOS A	21.3	149.1	0.00	0.00	48.0
6	R2	3339	0.0	1620	0.0	0.539	0.0	LOS A	21.3	149.1	0.00	0.00	52.6
Approach		4153	0.0	2015 N1	0.0	0.539	0.0	NA	21.3	149.1	0.00	0.00	52.6
North: Beecroft Rd													
7	L2	2568	0.0	1899	0.0	0.391	0.0	LOS A	81.6	571.2	0.00	0.00	59.9
Approach		2568	0.0	1899 N1	0.0	0.391	0.0	NA	81.6	571.2	0.00	0.00	59.9
West: Bridge St													
10	L2	365	0.0	337	0.0	0.891	23.9	LOS B	8.5	59.6	0.67	1.34	10.3
Approach		365	0.0	337 N1	0.0	0.891	23.9	LOS B	8.5	59.6	0.67	1.34	10.3
All Vehicles		7135	0.0	4299 N1	0.0	0.891	1.9	NA	81.6	571.2	0.06	0.11	50.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [2026_pm_rms]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	1377	0.0	727	0.0	0.310	6.9	LOS A	9.8	68.8	0.08	0.56	46.0
2	T1	2327	0.0	1229	0.0	4.849	3507.6	LOS F	81.6	571.2	1.00	2.90	0.4
Approach		3704	0.0	1956 N1	0.0	4.849	2206.4	LOS F	81.6	571.2	0.66	2.03	0.6
North: Beecroft Rd													
8	T1	1136	0.0	1136	0.0	1.658	662.3	LOS F	116.6	816.0	1.00	2.46	2.6
9	R2	557	0.0	557	0.0	4.906	3581.8	LOS F	116.6	816.0	1.00	2.64	0.5
Approach		1693	0.0	1693	0.0	4.906	1622.8	LOS F	116.6	816.0	1.00	2.52	1.1
West: Carlingford Rd													
10	L2	472	0.0	336	0.0	0.214	4.9	LOS A	1.0	7.0	0.05	0.55	30.5
12	R2	1433	0.0	1021	0.0	0.560	9.1	LOS A	8.0	55.7	0.19	0.61	21.0
Approach		1904	0.0	1357 N1	0.0	0.560	8.0	LOS A	8.0	55.7	0.15	0.60	22.8
All Vehicles		7301	0.0	5006 N1	0.0	4.906	1413.2	LOS F	116.6	816.0	0.64	1.81	0.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [2026_pm_rms]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Rawson St													
1	L2	3	0.0	3	0.0	0.727	8.5	LOS A	4.6	32.0	0.62	0.79	47.5
2	T1	280	0.0	280	0.0	0.727	8.7	LOS A	4.6	32.0	0.62	0.79	45.0
3	R2	231	0.0	231	0.0	0.727	13.4	LOS A	4.6	32.0	0.62	0.79	45.0
Approach		514	0.0	514	0.0	0.727	10.8	LOS A	4.6	32.0	0.62	0.79	45.0
East: Bridge St													
4	L2	21	0.0	11	0.0	0.277	4.4	LOS A	1.3	9.1	0.31	0.51	49.8
5	T1	360	0.0	191	0.0	0.277	4.6	LOS A	1.3	9.1	0.31	0.51	46.0
6	R2	154	0.0	82	0.0	0.277	9.2	LOS A	1.3	9.1	0.31	0.51	32.6
Approach		535	0.0	284 N1	0.0	0.277	5.9	LOS A	1.3	9.1	0.31	0.51	43.8
North: Rawson St													
7	L2	75	0.0	44	0.0	0.136	5.4	LOS A	0.8	5.3	0.49	0.60	38.8
8	T1	94	0.0	56	0.0	0.136	5.6	LOS A	0.8	5.3	0.49	0.60	51.9
9	R2	75	0.0	44	0.0	0.136	10.3	LOS A	0.8	5.3	0.49	0.60	47.3
Approach		243	0.0	145 N1	0.0	0.136	7.0	LOS A	0.8	5.3	0.49	0.60	48.2
West: Bridge St													
10	L2	100	0.0	100	0.0	0.341	7.3	LOS A	1.4	9.7	0.71	0.75	37.8
11	T1	75	0.0	75	0.0	0.341	7.5	LOS A	1.4	9.7	0.71	0.75	37.8
12	R2	6	0.0	6	0.0	0.341	12.2	LOS A	1.4	9.7	0.71	0.75	51.5
Approach		181	0.0	181	0.0	0.341	7.6	LOS A	1.4	9.7	0.71	0.75	38.8
All Vehicles		1473	0.0	1123 N1	0.0	0.727	8.6	LOS A	4.6	32.0	0.54	0.69	44.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [2026_pm_rms]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlingford Rd													
5	T1	1860	0.0	963	0.0	0.247	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		1860	0.0	963[N1]	0.0	0.247	0.0	NA	0.0	0.0	0.00	0.00	59.9
North: RoadName													
7	L2	49	0.0	49	0.0	0.135	8.5	LOS A	0.2	1.6	0.50	0.76	47.1
9	R2	101	0.0	101	0.0	3.553	2390.5	LOS F	55.0	384.8	1.00	2.26	0.7
Approach		151	0.0	151	0.0	3.553	1607.6	LOS F	55.0	384.8	0.84	1.76	1.1
West: Carlingford Rd													
10	L2	127	0.0	104	0.0	0.336	5.6	LOS A	31.7	221.9	0.00	0.10	57.1
11	T1	1467	0.0	1200	0.0	0.336	0.0	LOS A	31.7	221.9	0.00	0.04	58.8
Approach		1595	0.0	1304[N1]	0.0	0.336	0.5	NA	31.7	221.9	0.00	0.05	58.5
All Vehicles		3605	0.0	2418[N1]	0.0	3.553	100.4	NA	55.0	384.8	0.05	0.14	8.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [2026_pm_rms]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	107	0.0	107	0.0	0.168	7.5	LOS A	0.4	3.1	0.44	0.70	44.6
3	R2	63	0.0	63	0.0	6.771	5382.9	LOS F	50.2	351.5	1.00	1.51	0.2
Approach		171	0.0	171	0.0	6.771	1998.4	LOS F	50.2	351.5	0.65	1.00	0.6
East: Carlingford Rd													
4	L2	165	0.0	84	0.0	0.330	5.6	LOS A	0.0	0.0	0.00	0.10	56.4
5	T1	1785	0.0	907	0.0	0.330	0.0	LOS A	0.0	0.0	0.00	0.05	58.7
Approach		1951	0.0	991 N1	0.0	0.330	0.5	NA	0.0	0.0	0.00	0.05	58.4
North: Kent St													
7	L2	42	0.0	42	0.0	0.090	12.3	LOS A	0.3	2.3	0.67	0.86	43.0
Approach		42	0.0	42	0.0	0.090	12.3	LOS A	0.3	2.3	0.67	0.86	43.0
West: Carlingford Rd													
11	T1	1538	0.0	1293	0.0	0.465	2.1	LOS A	53.4	373.7	0.20	0.07	54.4
12	R2	141	0.0	119	0.0	0.465	16.7	LOS B	52.9	370.3	0.66	0.22	48.9
Approach		1679	0.0	1412 N1	0.0	0.465	3.3	NA	53.4	373.7	0.24	0.08	53.6
All Vehicles		3842	0.0	2615 N1	0.0	6.771	132.5	NA	53.4	373.7	0.18	0.14	9.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [2026_pm_rms]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	255	0.0	255	0.0	1.219	277.6	LOS F	73.4	514.1	1.00	1.65	8.7
2	T1	374	0.0	374	0.0	1.219	272.1	LOS F	73.4	514.1	1.00	1.64	8.8
3	R2	295	0.0	295	0.0	1.219	277.7	LOS F	73.1	512.0	1.00	1.62	3.7
Approach		923	0.0	923	0.0	1.219	275.4	LOS F	73.4	514.1	1.00	1.64	7.2
East: RoadName													
4	L2	36	0.0	19	0.0	1.232	288.5	LOS F	80.4	562.7	1.00	1.90	8.0
5	T1	1735	0.0	942	0.0	1.232	283.2	LOS F	80.4	562.7	1.00	1.89	9.8
6	R2	121	0.0	66	0.0	0.171	58.0	LOS E	3.9	27.6	0.86	0.75	29.4
Approach		1892	0.0	1027[N1]	0.0	1.232	268.9	LOS F	80.4	562.7	0.99	1.81	10.2
North: RoadName													
7	L2	92	0.0	92	0.0	0.953	101.8	LOS F	19.5	136.2	1.00	1.10	14.4
8	T1	228	0.0	228	0.0	0.953	96.3	LOS F	19.5	136.2	1.00	1.10	19.9
9	R2	116	0.0	116	0.0	0.953	101.9	LOS F	19.4	135.6	1.00	1.10	22.7
Approach		436	0.0	436	0.0	0.953	99.0	LOS F	19.5	136.2	1.00	1.10	19.7
West: RoadName													
10	L2	81	0.0	81	0.0	1.211	267.0	LOS F	116.9	818.0	1.00	1.85	10.9
11	T1	1231	0.0	1231	0.0	1.211	263.1	LOS F	116.9	818.0	1.00	1.87	6.1
12	R2	276	0.0	276	0.0	0.578	49.9	LOS D	16.1	113.0	0.86	0.81	29.2
Approach		1587	0.0	1587	0.0	1.211	226.2	LOS F	116.9	818.0	0.98	1.69	7.9
All Vehicles		4838	0.0	3973[N1]	0.0	1.232	234.7	LOS F	116.9	818.0	0.99	1.64	9.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	57.3	LOS E	0.2	0.2	0.88	0.88
P2	East Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	44.2	LOS E	0.2	0.2	0.77	0.77
P4	West Full Crossing	53	60.9	LOS F	0.2	0.2	0.90	0.90
All Pedestrians		211	57.9	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.

MOVEMENT SUMMARY

Site: Rawson [Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [2026_pm_rms]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	129	0.0	117	0.0	1.018	164.5	LOS F	15.3	107.1	1.00	1.10	3.4
2	T1	262	0.0	238	0.0	3.614	2419.1	LOS F	35.0	244.8	1.00	2.96	0.2
3	R2	376	0.0	341	0.0	3.614	2424.6	LOS F	35.0	244.8	1.00	2.96	0.2
Approach		767	0.0	696 N1	0.0	3.614	2041.4	LOS F	35.0	244.8	1.00	2.64	0.3
East: Carlingford Rd													
4	L2	267	0.0	123	0.0	0.325	14.6	LOS B	14.0	97.9	0.40	0.46	17.1
5	T1	1666	0.0	765	0.0	0.325	12.9	LOS A	14.0	97.9	0.51	0.50	15.3
Approach		1934	0.0	888 N1	0.0	0.325	13.1	LOS A	14.0	97.9	0.49	0.49	15.5
North: Ray St													
7	L2	48	0.0	48	0.0	0.313	68.1	LOS E	6.4	44.8	0.88	0.75	5.8
8	T1	39	0.0	39	0.0	0.313	62.6	LOS E	6.4	44.8	0.88	0.75	5.8
9	R2	63	0.0	63	0.0	1.432	471.3	LOS F	13.9	97.4	1.00	1.30	0.8
Approach		151	0.0	150 N1	0.0	1.432	235.8	LOS F	13.9	97.4	0.93	0.98	1.6
West: Carlingford Rd													
10	L2	38	0.0	31	0.0	0.899	46.2	LOS D	23.3	163.2	0.88	0.91	8.7
11	T1	1480	0.0	1220	0.0	0.899	41.1	LOS C	23.3	163.2	0.88	0.91	8.7
Approach		1518	0.0	1251 N1	0.0	0.899	41.2	LOS C	23.3	163.2	0.88	0.91	8.7
All Vehicles		4369	0.0	2985 N1	0.0	3.614	508.7	LOS F	35.0	244.8	0.80	1.19	0.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [2026_pm_rms]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	1304	0.0	1304	0.0	1.092	144.0	LOS F	28.0	195.8	1.00	1.22	2.6
2	T1	388	0.0	388	0.0	2.016	966.4	LOS F	28.0	195.8	1.00	2.61	1.1
Approach		1693	0.0	1693	0.0	2.016	332.7	LOS F	28.0	195.8	1.00	1.54	1.7
East: Epping Rd													
4	L2	12	0.0	7	0.0	0.009	31.9	LOS C	0.3	2.0	0.60	0.64	17.3
5	T1	2849	0.0	1690	0.0	2.063	1022.3	LOS F	46.6	326.4	1.00	3.37	0.7
Approach		2861	0.0	1697 N1	0.0	2.063	1018.3	LOS F	46.6	326.4	1.00	3.36	0.7
North: Landston Place													
7	L2	2	0.0	2	0.0	2.018	970.7	LOS F	45.1	315.7	1.00	2.00	0.6
8	T1	313	0.0	313	0.0	2.018	965.1	LOS F	45.1	316.0	1.00	2.00	0.6
Approach		315	0.0	315	0.0	2.018	965.2	LOS F	45.1	316.0	1.00	2.00	0.6
West: Bridge St													
10	L2	404	0.0	318	0.0	0.260	7.0	LOS A	4.5	31.7	0.25	0.62	39.0
11	T1	1021	0.0	804	0.0	0.360	7.6	LOS A	12.4	87.0	0.38	0.34	23.1
12	R2	1143	0.0	900	0.0	2.025	982.9	LOS F	14.0	97.9	1.00	3.18	0.3
Approach		2568	0.0	2022 N1	0.0	2.025	441.6	LOS F	14.0	97.9	0.64	1.65	0.8
All Vehicles		7437	0.0	5727 N1	0.0	2.063	609.1	LOS F	46.6	326.4	0.87	2.14	0.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [2026_pm_rms]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	13	0.0	13	0.0	0.093	77.0	LOS F	0.9	6.2	0.96	0.69	5.0
2	T1	61	0.0	61	0.0	0.427	74.2	LOS F	4.4	31.0	1.00	0.76	10.1
3	R2	165	0.0	165	0.0	1.213	275.8	LOS F	25.6	179.3	1.00	1.38	1.4
Approach		239	0.0	239	0.0	1.213	213.8	LOS F	25.6	179.3	1.00	1.18	2.3
East: Epping Rd													
4	L2	54	0.0	35	0.0	1.194	237.7	LOS F	36.1	253.0	1.00	1.73	3.6
5	T1	2500	0.0	1609	0.0	1.194	232.1	LOS F	36.1	253.0	1.00	1.74	2.4
Approach		2554	0.0	1643 N1	0.0	1.194	232.3	LOS F	36.1	253.0	1.00	1.74	2.4
North: Essex St													
7	L2	21	0.0	21	0.0	0.027	32.8	LOS C	0.9	6.2	0.62	0.68	17.0
8	T1	20	0.0	20	0.0	0.025	27.2	LOS B	0.8	5.9	0.62	0.45	24.8
9	R2	449	0.0	449	0.0	1.185	255.0	LOS F	72.2	505.6	1.00	1.41	2.8
Approach		491	0.0	491	0.0	1.185	236.2	LOS F	72.2	505.6	0.97	1.34	3.1
West: Epping Rd													
10	L2	51	0.0	38	0.0	0.552	32.3	LOS C	16.9	118.0	0.86	0.75	21.4
11	T1	962	0.0	722	0.0	0.552	26.8	LOS B	16.9	118.6	0.86	0.74	14.2
Approach		1013	0.0	759 N1	0.0	0.552	27.1	LOS B	16.9	118.6	0.86	0.74	14.6
All Vehicles		4296	0.0	3132 N1	0.0	1.213	181.7	LOS F	72.2	505.6	0.96	1.39	3.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [2026_pm_rms]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	24	0.0	24	0.0	0.042	10.8	LOS A	0.2	1.2	0.61	0.74	23.5
Approach		24	0.0	24	0.0	0.042	10.8	LOS A	0.2	1.2	0.61	0.74	23.5
East: Epping Rd													
4	L2	137	0.0	80	0.0	0.043	5.5	LOS A	0.0	0.0	0.00	0.58	35.7
5	T1	2824	0.0	1660	0.0	0.426	0.0	LOS A	28.0	195.8	0.00	0.00	59.9
Approach		2961	0.0	1740 N1	0.0	0.426	0.3	NA	28.0	195.8	0.00	0.03	58.0
West: Epping Rd													
11	T1	1013	0.0	820	0.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1013	0.0	820 N1	0.0	0.218	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		3998	0.0	2584 N1	0.0	0.426	0.3	NA	28.0	195.8	0.01	0.02	57.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [2026_pm_rms]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	34	0.0	26	0.0	0.266	9.1	LOS A	8.0	56.0	0.24	0.24	48.3
2	T1	1067	0.0	830	0.0	0.266	3.6	LOS A	8.0	56.2	0.24	0.23	54.7
Approach		1101	0.0	857 N1	0.0	0.266	3.7	LOS A	8.0	56.2	0.24	0.23	54.6
North: Epping Rd													
8	T1	2491	0.0	2491	0.0	1.543	557.5	LOS F	321.4	2249.8	1.00	2.47	3.1
9	R2	264	0.0	264	0.0	0.588	14.0	LOS A	9.3	65.4	0.43	0.72	44.6
Approach		2755	0.0	2755	0.0	1.543	505.4	LOS F	321.4	2249.8	0.95	2.30	3.6
West: Pembroke St													
10	L2	444	0.0	444	0.0	1.133	225.0	LOS F	33.2	232.1	1.00	1.20	9.6
Approach		444	0.0	444	0.0	1.133	225.0	LOS F	33.2	232.1	1.00	1.20	9.6
All Vehicles		4300	0.0	4055 N1	0.0	1.543	368.7	LOS F	321.4	2249.8	0.80	1.74	5.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	83.3	LOS F	0.3	0.3	0.96	0.96
P3	North Full Crossing	53	84.3	LOS F	0.3	0.3	0.97	0.97
P4	West Full Crossing	53	4.5	LOS A	0.1	0.1	0.22	0.22
All Pedestrians		158	57.4	LOS E			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [2026_pm_rms]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Epping Rd													
5	T1	2849	0.0	1685	0.0	0.288	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		2849	0.0	1685[N1]	0.0	0.288	0.0	NA	11.7	81.6	0.00	0.00	59.9
North: Smith St													
7	L2	17	0.0	17	0.0	0.019	7.3	LOS A	0.1	0.5	0.42	0.61	38.0
Approach		17	0.0	17	0.0	0.019	7.3	LOS A	0.1	0.5	0.42	0.61	38.0
West: Epping Rd													
10	L2	7	0.0	6	0.0	0.212	5.5	LOS A	0.0	0.0	0.00	0.01	55.9
11	T1	1015	0.0	821	0.0	0.212	0.0	LOS A	0.0	0.0	0.00	0.00	59.8
Approach		1022	0.0	826[N1]	0.0	0.212	0.0	NA	0.0	0.0	0.00	0.00	59.7
All Vehicles		3888	0.0	2529[N1]	0.0	0.288	0.1	NA	11.7	81.6	0.00	0.01	59.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 134.8 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Appendix L

2036 SIDRA Results

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	248	0.0	248	0.0	1.106	186.7	LOS F	59.7	417.6	1.00	1.41	12.2
2	T1	214	0.0	214	0.0	1.106	181.2	LOS F	59.7	417.6	1.00	1.41	12.3
3	R2	485	0.0	485	0.0	2.095	1050.1	LOS F	144.2	1009.6	1.00	2.30	1.0
Approach		947	0.0	947	0.0	2.095	627.7	LOS F	144.2	1009.6	1.00	1.86	3.0
East: RoadName													
4	L2	72	0.0	30	0.0	1.590	596.2	LOS F	76.3	534.4	1.00	2.22	4.1
5	T1	1525	0.0	630	0.0	1.590	590.7	LOS F	76.6	536.2	1.00	2.22	5.1
6	R2	69	0.0	29	0.0	0.145	71.9	LOS F	1.9	13.5	0.94	0.72	26.3
Approach		1666	0.0	688 N1	0.0	1.590	569.3	LOS F	76.6	536.2	1.00	2.15	5.2
North: RoadName													
7	L2	253	0.0	253	0.0	1.972	935.1	LOS F	90.3	632.1	1.00	2.39	1.9
8	T1	400	0.0	400	0.0	1.972	927.4	LOS F	128.0	895.9	1.00	2.65	2.9
9	R2	122	0.0	122	0.0	1.972	932.5	LOS F	128.0	895.9	1.00	2.71	3.6
Approach		775	0.0	775	0.0	1.972	930.7	LOS F	128.0	895.9	1.00	2.58	2.7
West: RoadName													
10	L2	65	0.0	65	0.0	2.530	1444.8	LOS F	437.6	3063.5	1.00	3.84	2.4
11	T1	2353	0.0	2353	0.0	2.530	1440.6	LOS F	437.6	3063.5	1.00	3.83	1.2
12	R2	135	0.0	135	0.0	0.184	37.0	LOS C	6.3	44.3	0.69	0.75	33.5
Approach		2553	0.0	2553	0.0	2.530	1366.6	LOS F	437.6	3063.5	0.98	3.67	1.4
All Vehicles		5941	0.0	4963 N1	0.0	2.530	1046.9	LOS F	437.6	3063.5	0.99	2.94	2.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	35.4	LOS D	0.2	0.2	0.69	0.69
P4	West Full Crossing	53	58.2	LOS E	0.2	0.2	0.88	0.88
All Pedestrians		211	58.0	LOS E			0.87	0.87

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	832	0.0	595	0.0	0.187	6.2	LOS A	2.9	20.1	0.06	0.55	47.3
2	T1	1627	0.0	1165	0.0	9.956	8097.3	LOS F	81.6	571.2	1.00	2.50	0.2
Approach		2459	0.0	1760 N1	0.0	9.956	5361.0	LOS F	81.6	571.2	0.68	1.84	0.2
North: Beecroft Rd													
8	T1	2183	0.0	2183	0.0	5.752	4327.4	LOS F	116.6	816.0	1.00	3.39	0.4
9	R2	941	0.0	941	0.0	15.202	12832.7	LOS F	116.6	816.0	1.00	2.63	0.1
Approach		3124	0.0	3124	0.0	15.202	6889.3	LOS F	116.6	816.0	1.00	3.16	0.3
West: Carlingford Rd													
10	L2	335	0.0	159	0.0	0.095	4.7	LOS A	0.4	3.0	0.05	0.55	30.9
12	R2	3422	0.0	1627	0.0	0.756	9.3	LOS A	14.0	97.9	0.33	0.67	20.6
Approach		3757	0.0	1786 N1	0.0	0.756	8.9	LOS A	14.0	97.9	0.30	0.66	21.3
All Vehicles		9340	0.0	6671 N1	0.0	15.202	4643.5	LOS F	116.6	816.0	0.73	2.14	0.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	2	0.0	2	0.0	0.493	5.8	LOS A	3.4	23.6	0.58	0.68	48.7
2	T1	200	0.0	200	0.0	0.493	6.0	LOS A	3.4	23.6	0.58	0.68	46.5
3	R2	339	0.0	339	0.0	0.493	10.6	LOS A	3.4	23.6	0.58	0.68	46.5
Approach		541	0.0	541	0.0	0.493	8.9	LOS A	3.4	23.6	0.58	0.68	46.5
East: Bridge St													
4	L2	38	0.0	27	0.0	0.206	4.2	LOS A	1.2	8.3	0.23	0.52	49.7
5	T1	185	0.0	132	0.0	0.206	4.4	LOS A	1.2	8.3	0.23	0.52	45.8
6	R2	166	0.0	119	0.0	0.206	9.0	LOS A	1.2	8.3	0.23	0.52	32.5
Approach		389	0.0	278 N1	0.0	0.206	6.3	LOS A	1.2	8.3	0.23	0.52	42.8
North: Rawson St													
7	L2	95	0.0	27	0.0	0.080	6.1	LOS A	0.4	3.1	0.57	0.64	37.9
8	T1	87	0.0	25	0.0	0.080	6.4	LOS A	0.4	3.1	0.57	0.64	51.4
9	R2	82	0.0	23	0.0	0.080	11.0	LOS A	0.4	3.1	0.57	0.64	46.7
Approach		264	0.0	75 N1	0.0	0.080	7.7	LOS A	0.4	3.1	0.57	0.64	47.0
West: Bridge St													
10	L2	211	0.0	211	0.0	0.457	9.0	LOS A	3.2	22.6	0.81	0.86	35.3
11	T1	109	0.0	109	0.0	0.457	9.3	LOS A	3.2	22.6	0.81	0.86	35.3
12	R2	16	0.0	16	0.0	0.457	13.9	LOS A	3.2	22.6	0.81	0.86	50.0
Approach		336	0.0	336	0.0	0.457	9.3	LOS A	3.2	22.6	0.81	0.86	36.8
All Vehicles		1531	0.0	1230 N1	0.0	0.493	8.4	LOS A	3.4	23.6	0.56	0.69	44.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: High St													
1	L2	48	0.0	48	0.0	0.042	1.1	LOS A	0.2	1.4	0.36	0.19	48.9
Approach		48	0.0	48	0.0	0.042	1.1	NA	0.2	1.4	0.36	0.19	48.9
East: Bridge													
4	L2	241	0.0	163	0.0	0.476	0.0	LOS A	21.3	149.1	0.00	0.00	54.0
5	T1	400	0.0	270	0.0	0.476	0.0	LOS A	21.3	149.1	0.00	0.00	46.0
6	R2	2002	0.0	1350	0.0	0.476	0.0	LOS A	21.3	149.1	0.00	0.00	52.3
Approach		2643	0.0	1782 N1	0.0	0.476	0.0	NA	21.3	149.1	0.00	0.00	52.1
North: Beecroft Rd													
7	L2	5605	0.0	2023	0.0	0.417	0.1	LOS A	81.6	571.2	0.00	0.00	59.9
Approach		5605	0.0	2023 N1	0.0	0.417	0.1	NA	81.6	571.2	0.00	0.00	59.9
West: Bridge St													
10	L2	457	0.0	400	0.0	0.900	21.2	LOS B	10.6	74.2	0.61	1.19	11.1
Approach		457	0.0	400 N1	0.0	0.900	21.2	LOS B	10.6	74.2	0.61	1.19	11.1
All Vehicles		8754	0.0	4254 N1	0.0	0.900	2.0	NA	81.6	571.2	0.06	0.11	49.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	248	0.0	248	0.0	1.106	186.7	LOS F	59.7	417.6	1.00	1.41	12.2
2	T1	214	0.0	214	0.0	1.106	181.2	LOS F	59.7	417.6	1.00	1.41	12.3
3	R2	485	0.0	485	0.0	2.095	1050.1	LOS F	144.2	1009.6	1.00	2.30	1.0
Approach		947	0.0	947	0.0	2.095	627.7	LOS F	144.2	1009.6	1.00	1.86	3.0
East: RoadName													
4	L2	72	0.0	30	0.0	1.590	596.2	LOS F	76.3	534.4	1.00	2.22	4.1
5	T1	1525	0.0	630	0.0	1.590	590.7	LOS F	76.6	536.2	1.00	2.22	5.1
6	R2	69	0.0	29	0.0	0.145	71.9	LOS F	1.9	13.5	0.94	0.72	26.3
Approach		1666	0.0	688 N1	0.0	1.590	569.3	LOS F	76.6	536.2	1.00	2.15	5.2
North: RoadName													
7	L2	253	0.0	253	0.0	1.972	935.1	LOS F	90.3	632.1	1.00	2.39	1.9
8	T1	400	0.0	400	0.0	1.972	927.4	LOS F	128.0	895.9	1.00	2.65	2.9
9	R2	122	0.0	122	0.0	1.972	932.5	LOS F	128.0	895.9	1.00	2.71	3.6
Approach		775	0.0	775	0.0	1.972	930.7	LOS F	128.0	895.9	1.00	2.58	2.7
West: RoadName													
10	L2	65	0.0	65	0.0	2.530	1444.8	LOS F	437.6	3063.5	1.00	3.84	2.4
11	T1	2353	0.0	2353	0.0	2.530	1440.6	LOS F	437.6	3063.5	1.00	3.83	1.2
12	R2	135	0.0	135	0.0	0.184	37.0	LOS C	6.3	44.3	0.69	0.75	33.5
Approach		2553	0.0	2553	0.0	2.530	1366.6	LOS F	437.6	3063.5	0.98	3.67	1.4
All Vehicles		5941	0.0	4963 N1	0.0	2.530	1046.9	LOS F	437.6	3063.5	0.99	2.94	2.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	35.4	LOS D	0.2	0.2	0.69	0.69
P4	West Full Crossing	53	58.2	LOS E	0.2	0.2	0.88	0.88
All Pedestrians		211	58.0	LOS E			0.87	0.87

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: RoadName													
1	L2	1	0.0	1	0.0	12.944	10918.7	LOS F	74.6	521.9	1.00	1.38	0.1
2	T1	100	0.0	78	0.0	12.944	10956.8	LOS F	74.6	521.9	1.00	1.38	0.2
3	R2	569	0.0	442	0.0	147.415	131839.2	LOS F	74.6	521.9	1.00	1.41	0.0
Approach		671	0.0	521 N1	0.0	147.415	113621.3	LOS F	74.6	521.9	1.00	1.41	0.0
East: Carlingford Rd													
4	L2	1	0.0	0	0.0	0.145	5.5	LOS A	0.0	0.0	0.00	0.00	59.9
5	T1	1417	0.0	566	0.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		1418	0.0	566 N1	0.0	0.145	0.0	NA	0.0	0.0	0.00	0.00	59.9
North: RoadName													
7	L2	95	0.0	95	0.0	35.840	31439.8	LOS F	210.2	1471.1	1.00	1.69	0.1
8	T1	114	0.0	114	0.0	35.840	31453.0	LOS F	210.2	1471.1	1.00	1.69	0.1
9	R2	256	0.0	256	0.0	35.840	31458.2	LOS F	210.2	1471.1	1.00	1.44	0.1
Approach		464	0.0	464	0.0	35.840	31453.2	LOS F	210.2	1471.1	1.00	1.55	0.1
West: Carlingford Rd													
10	L2	60	0.0	38	0.0	0.523	5.6	LOS A	79.3	554.9	0.00	0.02	57.7
11	T1	3163	0.0	2000	0.0	0.523	0.1	LOS A	79.3	554.9	0.00	0.01	59.5
Approach		3223	0.0	2038 N1	0.0	0.523	0.2	NA	79.3	554.9	0.00	0.01	59.5
All Vehicles		5776	0.0	3589 N1	0.0	147.415	20552.2	NA	210.2	1471.1	0.27	0.41	0.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	145	0.0	145	0.0	0.178	6.6	LOS A	0.5	3.7	0.34	0.62	45.6
3	R2	80	0.0	80	0.0	26.666	23266.8	LOS F	78.1	546.7	1.00	1.38	0.1
Approach		225	0.0	225	0.0	26.666	8267.3	LOS F	78.1	546.7	0.58	0.89	0.2
East: Carlingford Rd													
4	L2	191	0.0	68	0.0	0.199	5.6	LOS A	0.0	0.0	0.00	0.13	56.1
5	T1	1521	0.0	543	0.0	0.199	0.0	LOS A	0.0	0.0	0.00	0.06	58.5
Approach		1712	0.0	611 N1	0.0	0.199	0.6	NA	0.0	0.0	0.00	0.07	58.0
North: Kent St													
7	L2	263	0.0	263	0.0	1.611	575.3	LOS F	66.5	465.7	1.00	6.81	3.0
Approach		263	0.0	263	0.0	1.611	575.3	LOS F	66.5	465.7	1.00	6.81	3.0
West: Carlingford Rd													
11	T1	2882	0.0	1807	0.0	0.562	1.1	LOS A	59.0	413.2	0.16	0.06	56.4
12	R2	235	0.0	147	0.0	0.562	12.2	LOS A	59.0	413.2	0.42	0.14	53.3
Approach		3117	0.0	1954 N1	0.0	0.562	1.9	NA	59.0	413.2	0.18	0.06	56.0
All Vehicles		5317	0.0	3053 N1	0.0	26.666	660.9	NA	78.1	546.7	0.25	0.71	2.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Rawson [1Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	92	0.0	73	0.0	0.217	87.1	LOS F	3.0	20.9	0.96	0.74	4.4
Approach		92	0.0	73[N1]	0.0	0.217	87.1	LOS F	3.0	20.9	0.96	0.74	4.4
East: Carlingford Rd													
4	L2	448	0.0	167	0.0	0.205	6.7	LOS A	4.3	30.2	0.17	0.39	29.8
5	T1	1324	0.0	492	0.0	0.205	3.4	LOS A	7.4	51.9	0.25	0.30	31.7
Approach		1773	0.0	659[N1]	0.0	0.205	4.2	LOS A	7.4	51.9	0.23	0.32	31.2
North: Ray St													
7	L2	134	0.0	134	0.0	0.720	98.3	LOS F	6.2	43.4	1.00	0.86	4.0
Approach		134	0.0	134	0.0	0.720	98.3	LOS F	6.2	43.4	1.00	0.86	4.0
West: Carlingford Rd													
10	L2	205	0.0	106	0.0	1.191	243.7	LOS F	23.3	163.2	1.00	1.70	1.7
11	T1	3622	0.0	1877	0.0	1.191	239.0	LOS F	23.3	163.2	1.00	1.72	1.7
Approach		3827	0.0	1984[N1]	0.0	1.191	239.2	LOS F	23.3	163.2	1.00	1.72	1.7
All Vehicles		5825	0.0	2849[N1]	0.0	1.191	174.4	LOS F	23.3	163.2	0.82	1.33	2.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	979	0.0	979	0.0	0.954	80.5	LOS F	28.0	195.8	1.00	1.11	5.5
2	T1	279	0.0	279	0.0	1.448	468.8	LOS F	28.0	195.8	1.00	1.99	2.1
Approach		1258	0.0	1258	0.0	1.448	166.6	LOS F	28.0	195.8	1.00	1.30	3.4
East: Epping Rd													
4	L2	3	0.0	2	0.0	0.003	33.6	LOS C	0.1	0.7	0.62	0.62	16.7
5	T1	1643	0.0	1181	0.0	1.513	530.7	LOS F	46.6	326.4	1.00	2.56	1.4
Approach		1646	0.0	1183 N1	0.0	1.513	529.7	LOS F	46.6	326.4	1.00	2.56	1.4
North: Landston Place													
7	L2	2	0.0	2	0.0	1.515	531.2	LOS F	73.0	511.1	1.00	2.15	1.2
8	T1	665	0.0	665	0.0	1.515	525.6	LOS F	73.5	514.5	1.00	2.15	1.2
Approach		667	0.0	667	0.0	1.515	525.7	LOS F	73.5	514.5	1.00	2.15	1.2
West: Bridge St													
10	L2	431	0.0	157	0.0	0.128	6.7	LOS A	2.0	13.8	0.23	0.60	39.5
11	T1	3687	0.0	1345	0.0	0.635	15.3	LOS B	14.0	97.9	0.61	0.56	14.3
12	R2	1488	0.0	543	0.0	1.527	541.7	LOS F	14.0	97.9	1.00	2.48	0.5
Approach		5606	0.0	2045 N1	0.0	1.527	154.4	LOS F	14.0	97.9	0.68	1.07	2.0
All Vehicles		9178	0.0	5153 N1	0.0	1.527	291.6	LOS F	73.5	514.5	0.87	1.61	1.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	25	0.0	25	0.0	0.136	72.9	LOS F	1.7	12.0	0.95	0.72	5.2
2	T1	51	0.0	51	0.0	0.259	68.4	LOS E	3.5	24.4	0.96	0.73	10.8
3	R2	262	0.0	262	0.0	1.428	457.0	LOS F	53.4	373.8	1.00	1.65	0.9
Approach		338	0.0	338	0.0	1.428	370.2	LOS F	53.4	373.8	0.99	1.44	1.2
East: Epping Rd													
4	L2	32	0.0	32	0.0	1.398	414.2	LOS F	36.1	253.0	1.00	2.01	2.1
5	T1	1021	0.0	1021	0.0	1.398	408.7	LOS F	36.1	253.0	1.00	2.01	1.4
Approach		1053	0.0	1053	0.0	1.398	408.8	LOS F	36.1	253.0	1.00	2.01	1.4
North: Essex St													
7	L2	42	0.0	42	0.0	0.041	22.0	LOS B	1.4	9.7	0.49	0.67	22.2
8	T1	66	0.0	66	0.0	0.062	16.6	LOS B	2.2	15.4	0.49	0.39	32.1
9	R2	752	0.0	752	0.0	1.521	543.3	LOS F	175.4	1227.6	1.00	1.84	1.4
Approach		860	0.0	860	0.0	1.521	477.2	LOS F	175.4	1227.6	0.94	1.67	1.6
West: Epping Rd													
10	L2	142	0.0	47	0.0	1.524	525.1	LOS F	28.0	195.8	1.00	2.21	1.7
11	T1	3355	0.0	1101	0.0	1.524	519.5	LOS F	28.0	195.8	1.00	2.21	0.9
Approach		3497	0.0	1147 N1	0.0	1.524	519.8	LOS F	28.0	195.8	1.00	2.21	0.9
All Vehicles		5747	0.0	3398 N1	0.0	1.524	459.7	LOS F	175.4	1227.6	0.98	1.94	1.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Forrest Grove													
1	L2	44	0.0	44	0.0	0.055	8.4	LOS A	0.2	1.6	0.51	0.66	27.2
Approach		44	0.0	44	0.0	0.055	8.4	LOS A	0.2	1.6	0.51	0.66	27.2
East: Epping Rd													
4	L2	199	0.0	138	0.0	0.075	5.5	LOS A	0.0	0.0	0.00	0.58	35.7
5	T1	1599	0.0	1113	0.0	0.285	0.0	LOS A	28.0	195.8	0.00	0.00	59.9
Approach		1798	0.0	1251[N1]	0.0	0.285	0.6	NA	28.0	195.8	0.00	0.06	55.6
West: Epping Rd													
11	T1	3497	0.0	1212	0.0	0.311	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		3497	0.0	1212[N1]	0.0	0.311	0.0	NA	11.7	81.6	0.00	0.00	59.9
All Vehicles		5339	0.0	2508[N1]	0.0	0.311	0.5	NA	28.0	195.8	0.01	0.04	55.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	9	0.0	3	0.0	0.329	11.8	LOS A	12.6	88.5	0.32	0.29	44.6
2	T1	3684	0.0	995	0.0	0.329	6.2	LOS A	12.6	88.5	0.32	0.29	51.7
Approach		3694	0.0	998[N1]	0.0	0.329	6.2	LOS A	12.6	88.5	0.32	0.29	51.7
North: Epping Rd													
8	T1	951	0.0	951	0.0	0.627	9.2	LOS A	17.8	124.8	0.47	0.44	46.2
9	R2	312	0.0	312	0.0	0.962	103.4	LOS F	36.9	258.3	0.90	1.06	18.1
Approach		1262	0.0	1262	0.0	0.962	32.4	LOS C	36.9	258.3	0.58	0.59	30.7
West: Pembroke St													
10	L2	942	0.0	942	0.0	1.640	650.4	LOS F	120.4	842.5	1.00	1.72	3.7
Approach		942	0.0	942	0.0	1.640	650.4	LOS F	120.4	842.5	1.00	1.72	3.7
All Vehicles		5898	0.0	3202[N1]	0.0	1.640	206.1	LOS F	120.4	842.5	0.62	0.83	9.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	74.9	LOS F	0.2	0.2	0.91	0.91
P3	North Full Crossing	53	77.6	LOS F	0.3	0.3	0.93	0.93
P4	West Full Crossing	53	6.7	LOS A	0.1	0.1	0.27	0.27
All Pedestrians		158	53.1	LOS E			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [Epping_2036_am_RMS_Council]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Epping Rd													
5	T1	1643	0.0	1180	0.0	0.202	0.0	LOS A	11.7	81.6	0.00	0.00	60.0
Approach		1643	0.0	1180 N1	0.0	0.202	0.0	NA	11.7	81.6	0.00	0.00	60.0
North: Smith St													
7	L2	13	0.0	13	0.0	0.035	8.5	LOS A	0.1	0.4	0.51	0.69	35.9
Approach		13	0.0	13	0.0	0.035	8.5	LOS A	0.1	0.4	0.51	0.69	35.9
West: Epping Rd													
10	L2	204	0.0	74	0.0	0.343	5.6	LOS A	46.6	326.4	0.00	0.07	54.7
11	T1	3484	0.0	1260	0.0	0.343	0.0	LOS A	46.6	326.4	0.00	0.03	58.6
Approach		3688	0.0	1334 N1	0.0	0.343	0.3	NA	46.6	326.4	0.00	0.03	58.2
All Vehicles		5344	0.0	2526 N1	0.0	0.343	0.2	NA	46.6	326.4	0.00	0.02	58.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 146.2 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Beec-Carl [Beecroft-Carlingford]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

Beecroft Rd - Carlingford Rd
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Beecroft Rd													
1	L2	1518	0.0	719	0.0	0.325	9.3	LOS A	11.7	82.2	0.12	0.57	42.7
2	T1	2559	0.0	1213	0.0	2.704	1587.6	LOS F	81.6	571.2	1.00	2.95	0.8
Approach		4077	0.0	1932 N1	0.0	2.704	1000.0	LOS F	81.6	571.2	0.67	2.06	1.3
North: Beecroft Rd													
8	T1	1285	0.0	1285	0.0	1.097	176.4	LOS F	116.6	816.0	1.00	1.43	8.8
9	R2	664	0.0	664	0.0	2.706	1614.2	LOS F	116.6	816.0	1.00	2.32	1.1
Approach		1949	0.0	1949	0.0	2.706	666.3	LOS F	116.6	816.0	1.00	1.73	2.6
West: Carlingford Rd													
10	L2	502	0.0	285	0.0	0.203	5.9	LOS A	2.1	14.6	0.11	0.57	27.4
12	R2	1794	0.0	1019	0.0	0.887	19.8	LOS B	14.0	97.9	0.38	0.71	11.9
Approach		2296	0.0	1304 N1	0.0	0.887	16.8	LOS B	14.0	97.9	0.32	0.68	13.6
All Vehicles		8322	0.0	5185 N1	0.0	2.706	627.3	LOS F	116.6	816.0	0.71	1.59	1.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Bridge St [Bridge St]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

Beecroft Rd - Hight St Bridge St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: High St													
1	L2	63	0.0	63	0.0	0.056	1.3	LOS A	0.3	1.9	0.38	0.22	48.8
Approach		63	0.0	63	0.0	0.056	1.3	NA	0.3	1.9	0.38	0.22	48.8
East: Bridge													
4	L2	397	0.0	167	0.0	0.534	0.0	LOS A	21.3	149.1	0.00	0.00	54.1
5	T1	707	0.0	297	0.0	0.534	0.0	LOS A	21.3	149.1	0.00	0.00	46.5
6	R2	3646	0.0	1533	0.0	0.534	0.0	LOS A	21.3	149.1	0.00	0.00	52.4
Approach		4751	0.0	1997[N1]	0.0	0.534	0.0	NA	21.3	149.1	0.00	0.00	52.1
North: Beecroft Rd													
7	L2	3079	0.0	2179	0.0	0.449	0.1	LOS A	81.6	571.2	0.00	0.00	59.8
Approach		3079	0.0	2179[N1]	0.0	0.449	0.1	NA	81.6	571.2	0.00	0.00	59.8
West: Bridge St													
10	L2	431	0.0	405	0.0	0.986	46.2	LOS D	17.9	125.4	0.66	1.98	6.3
Approach		431	0.0	405[N1]	0.0	0.986	46.2	LOS D	17.9	125.4	0.66	1.98	6.3
All Vehicles		8323	0.0	4644[N1]	0.0	0.986	4.1	NA	81.6	571.2	0.06	0.18	45.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option is selected.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: BridgeRaws [BridgeSt_RawsonSt]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

BridgeSt_RawsonSt
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	3	0.0	3	0.0	0.716	9.3	LOS A	6.0	41.7	0.71	0.85	46.7
2	T1	296	0.0	296	0.0	0.716	9.5	LOS A	6.0	41.7	0.71	0.85	44.1
3	R2	291	0.0	291	0.0	0.716	14.1	LOS A	6.0	41.7	0.71	0.85	44.1
Approach		589	0.0	589	0.0	0.716	11.8	LOS A	6.0	41.7	0.71	0.85	44.1
East: Bridge St													
4	L2	29	0.0	14	0.0	0.276	4.3	LOS A	1.6	11.3	0.28	0.50	49.9
5	T1	485	0.0	226	0.0	0.276	4.5	LOS A	1.6	11.3	0.28	0.50	46.1
6	R2	226	0.0	106	0.0	0.276	9.1	LOS A	1.6	11.3	0.28	0.50	32.8
Approach		741	0.0	346[N1]	0.0	0.276	5.9	LOS A	1.6	11.3	0.28	0.50	43.8
North: Rawson St													
7	L2	42	0.0	16	0.0	0.098	5.7	LOS A	0.5	3.7	0.53	0.63	37.7
8	T1	101	0.0	39	0.0	0.098	5.9	LOS A	0.5	3.7	0.53	0.63	51.2
9	R2	98	0.0	38	0.0	0.098	10.6	LOS A	0.5	3.7	0.53	0.63	46.4
Approach		241	0.0	94[N1]	0.0	0.098	7.8	LOS A	0.5	3.7	0.53	0.63	48.2
West: Bridge St													
10	L2	142	0.0	142	0.0	0.411	8.5	LOS A	2.2	15.7	0.81	0.84	36.1
11	T1	87	0.0	87	0.0	0.411	8.8	LOS A	2.2	15.7	0.81	0.84	36.1
12	R2	6	0.0	6	0.0	0.411	13.4	LOS A	2.2	15.7	0.81	0.84	50.6
Approach		236	0.0	236	0.0	0.411	8.8	LOS A	2.2	15.7	0.81	0.84	37.0
All Vehicles		1807	0.0	1265[N1]	0.0	0.716	9.3	LOS A	6.0	41.7	0.60	0.74	43.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: CarIf_Clif [CarlingfordRd_CliffRd]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

CarlingfordRd_CliffRd
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: RoadName													
1	L2	1	0.0	1	0.0	8.209	6552.2	LOS F	74.6	521.9	1.00	1.99	0.1
2	T1	197	0.0	149	0.0	8.209	6574.6	LOS F	74.6	521.9	1.00	1.99	0.4
3	R2	573	0.0	433	0.0	89.297	79526.2	LOS F	74.6	521.9	1.00	1.61	0.0
Approach		771	0.0	583[N1]	0.0	89.297	60790.0	LOS F	74.6	521.9	1.00	1.71	0.0
East: Carlingford Rd													
4	L2	1	0.0	0	0.0	0.236	5.5	LOS A	0.0	0.0	0.00	0.00	59.9
5	T1	2004	0.0	921	0.0	0.236	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		2005	0.0	922[N1]	0.0	0.236	0.0	NA	0.0	0.0	0.00	0.00	59.9
North: RoadName													
7	L2	56	0.0	56	0.0	15.550	13169.0	LOS F	140.9	986.3	1.00	2.08	0.1
8	T1	65	0.0	65	0.0	15.550	13179.1	LOS F	140.9	986.3	1.00	2.08	0.1
9	R2	192	0.0	192	0.0	15.550	13220.1	LOS F	140.9	986.3	1.00	1.69	0.1
Approach		313	0.0	313	0.0	15.550	13202.4	LOS F	140.9	986.3	1.00	1.84	0.1
West: Carlingford Rd													
10	L2	112	0.0	83	0.0	0.362	5.6	LOS A	34.2	239.1	0.00	0.07	57.3
11	T1	1789	0.0	1326	0.0	0.362	0.0	LOS A	35.0	245.1	0.00	0.03	59.1
Approach		1901	0.0	1409[N1]	0.0	0.362	0.4	NA	35.0	245.1	0.00	0.04	58.8
All Vehicles		4989	0.0	3226[N1]	0.0	89.297	12263.5	NA	140.9	986.3	0.28	0.50	0.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carli_Kent [CarlingfordRd_KentSt]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

CarlingfordRd_KentSt
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Kent St													
1	L2	181	0.0	181	0.0	0.335	7.8	LOS A	0.8	5.9	0.45	0.74	44.3
3	R2	59	0.0	59	0.0	6.961	5568.6	LOS F	48.2	337.2	1.00	1.48	0.2
Approach		240	0.0	240	0.0	6.961	1373.6	LOS F	48.2	337.2	0.59	0.92	0.9
East: Carlingford Rd													
4	L2	191	0.0	83	0.0	0.372	5.6	LOS A	0.0	0.0	0.00	0.11	56.3
5	T1	1994	0.0	864	0.0	0.372	0.1	LOS A	0.0	0.0	0.00	0.05	58.7
Approach		2184	0.0	946 N1	0.0	0.372	0.5	NA	0.0	0.0	0.00	0.05	58.3
North: Kent St													
7	L2	51	0.0	51	0.0	0.115	13.0	LOS A	0.4	2.9	0.70	0.87	42.3
Approach		51	0.0	51	0.0	0.115	13.0	LOS A	0.4	2.9	0.70	0.87	42.3
West: Carlingford Rd													
11	T1	1792	0.0	1349	0.0	0.485	2.0	LOS A	60.7	425.2	0.20	0.07	54.5
12	R2	176	0.0	132	0.0	0.485	16.1	LOS B	60.7	425.2	0.66	0.23	49.1
Approach		1967	0.0	1481 N1	0.0	0.485	3.3	NA	60.7	425.2	0.24	0.08	53.7
All Vehicles		4442	0.0	2718 N1	0.0	6.961	123.5	NA	60.7	425.2	0.20	0.16	10.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Carl_Mids [CarlingfordRd_MidsonRd]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

CarlingfordRd_MidsonRd
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Midson Rd													
1	L2	221	0.0	221	0.0	1.370	405.7	LOS F	101.3	709.0	1.00	2.03	6.3
2	T1	421	0.0	421	0.0	1.370	400.2	LOS F	101.3	709.0	1.00	1.97	6.3
3	R2	396	0.0	396	0.0	1.370	405.9	LOS F	99.6	697.5	1.00	1.82	2.6
Approach		1038	0.0	1038	0.0	1.370	403.6	LOS F	101.3	709.0	1.00	1.93	4.9
East: RoadName													
4	L2	36	0.0	17	0.0	1.329	370.8	LOS F	92.4	646.6	1.00	2.11	6.4
5	T1	1984	0.0	948	0.0	1.329	365.5	LOS F	92.4	646.6	1.00	2.09	7.8
6	R2	177	0.0	84	0.0	0.235	60.6	LOS E	5.2	36.6	0.89	0.77	28.8
Approach		2197	0.0	1050[N1]	0.0	1.329	341.1	LOS F	92.4	646.6	0.99	1.98	8.3
North: RoadName													
7	L2	137	0.0	137	0.0	1.075	166.9	LOS F	28.8	201.8	1.00	1.34	9.3
8	T1	262	0.0	262	0.0	1.075	161.3	LOS F	29.1	203.5	1.00	1.34	13.5
9	R2	93	0.0	93	0.0	1.075	166.8	LOS F	29.1	203.5	1.00	1.34	15.9
Approach		492	0.0	492	0.0	1.075	163.9	LOS F	29.1	203.5	1.00	1.34	12.9
West: RoadName													
10	L2	88	0.0	88	0.0	1.347	382.3	LOS F	162.8	1139.8	1.00	2.20	8.1
11	T1	1445	0.0	1445	0.0	1.347	378.1	LOS F	162.8	1139.8	1.00	2.23	4.4
12	R2	285	0.0	285	0.0	0.630	48.4	LOS D	16.4	115.1	0.85	0.81	29.7
Approach		1819	0.0	1819	0.0	1.347	326.6	LOS F	162.8	1139.8	0.98	2.01	5.7
All Vehicles		5545	0.0	4398[N1]	0.0	1.370	330.0	LOS F	162.8	1139.8	0.99	1.91	6.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	59.1	LOS E	0.2	0.2	0.89	0.89
P2	East Full Crossing	53	69.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	42.7	LOS E	0.2	0.2	0.75	0.75
P4	West Full Crossing	53	60.9	LOS F	0.2	0.2	0.90	0.90
All Pedestrians		211	58.0	LOS E			0.88	0.88

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

MOVEMENT SUMMARY

Site: Rawson [1Carlingford Rd - Ray St - Rawson St]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

Carlingford Rd - Ray St - Rawson St
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)
Common Control Group: carl [Carlingford Rd]

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rawson St													
1	L2	151	0.0	120	0.0	0.081	35.7	LOS C	3.0	20.8	0.61	0.71	9.8
Approach		151	0.0	120[N1]	0.0	0.081	35.7	LOS C	3.0	20.8	0.61	0.71	9.8
East: Carlingford Rd													
4	L2	328	0.0	145	0.0	0.509	37.2	LOS C	14.0	97.9	0.71	0.68	7.1
5	T1	1854	0.0	818	0.0	0.509	36.2	LOS C	14.0	97.9	0.79	0.73	6.7
Approach		2182	0.0	963[N1]	0.0	0.509	36.4	LOS C	14.0	97.9	0.78	0.72	6.7
North: Ray St													
7	L2	84	0.0	84	0.0	0.053	35.2	LOS C	2.1	14.9	0.60	0.69	9.9
Approach		84	0.0	84	0.0	0.053	35.2	LOS C	2.1	14.9	0.60	0.69	9.9
West: Carlingford Rd													
10	L2	183	0.0	101	0.0	0.730	44.1	LOS D	23.3	163.2	0.86	0.80	9.0
11	T1	2234	0.0	1232	0.0	0.730	38.5	LOS C	23.3	163.2	0.86	0.79	9.1
Approach		2417	0.0	1333[N1]	0.0	0.730	38.9	LOS C	23.3	163.2	0.86	0.79	9.1
All Vehicles		4834	0.0	2500[N1]	0.0	0.730	37.7	LOS C	23.3	163.2	0.81	0.76	8.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	1381	0.0	1381	0.0	1.156	197.5	LOS F	28.0	195.8	1.00	1.33	2.0
2	T1	423	0.0	423	0.0	2.023	973.0	LOS F	28.0	195.8	1.00	2.68	1.1
Approach		1804	0.0	1804	0.0	2.023	379.4	LOS F	28.0	195.8	1.00	1.64	1.5
East: Epping Rd													
4	L2	3	0.0	2	0.0	0.002	32.9	LOS C	0.1	0.4	0.61	0.61	16.9
5	T1	3371	0.0	1636	0.0	2.061	1020.9	LOS F	46.6	326.4	1.00	3.33	0.7
Approach		3374	0.0	1637[N1]	0.0	2.061	1019.9	LOS F	46.6	326.4	1.00	3.33	0.7
North: Landston Place													
7	L2	2	0.0	2	0.0	1.863	834.3	LOS F	52.2	365.1	1.00	2.07	0.8
8	T1	385	0.0	385	0.0	1.863	828.8	LOS F	52.2	365.3	1.00	2.07	0.8
Approach		387	0.0	387	0.0	1.863	828.8	LOS F	52.2	365.3	1.00	2.07	0.8
West: Bridge St													
10	L2	481	0.0	327	0.0	0.272	7.5	LOS A	5.1	35.6	0.27	0.62	38.2
11	T1	1320	0.0	897	0.0	0.432	9.6	LOS A	14.0	97.9	0.44	0.39	19.9
12	R2	1279	0.0	869	0.0	2.059	1013.2	LOS F	14.0	97.9	1.00	3.22	0.3
Approach		3080	0.0	2094[N1]	0.0	2.059	426.0	LOS F	14.0	97.9	0.65	1.60	0.8
All Vehicles		8645	0.0	5923[N1]	0.0	2.061	602.3	LOS F	52.2	365.3	0.87	2.12	0.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	18	0.0	18	0.0	0.131	77.4	LOS F	1.3	8.8	0.97	0.70	4.9
2	T1	78	0.0	78	0.0	0.545	75.0	LOS F	5.7	40.0	1.00	0.77	10.0
3	R2	177	0.0	177	0.0	1.298	346.6	LOS F	31.1	217.8	1.00	1.49	1.1
Approach		273	0.0	273	0.0	1.298	251.3	LOS F	31.1	217.8	1.00	1.23	2.0
East: Epping Rd													
4	L2	56	0.0	32	0.0	1.331	357.0	LOS F	36.1	253.0	1.00	2.07	2.5
5	T1	2921	0.0	1662	0.0	1.331	351.5	LOS F	36.1	253.0	1.00	2.08	1.6
Approach		2977	0.0	1694 N1	0.0	1.331	351.6	LOS F	36.1	253.0	1.00	2.08	1.6
North: Essex St													
7	L2	26	0.0	26	0.0	0.032	30.5	LOS C	1.1	7.4	0.59	0.68	17.9
8	T1	23	0.0	23	0.0	0.027	24.8	LOS B	0.9	6.5	0.59	0.44	26.2
9	R2	547	0.0	547	0.0	1.355	398.7	LOS F	109.6	767.4	1.00	1.65	1.8
Approach		597	0.0	597	0.0	1.355	367.9	LOS F	109.6	767.4	0.97	1.56	2.0
West: Epping Rd													
10	L2	87	0.0	62	0.0	0.741	40.1	LOS C	24.7	173.2	0.95	0.85	18.2
11	T1	1242	0.0	880	0.0	0.741	34.6	LOS C	24.9	174.3	0.95	0.84	11.6
Approach		1329	0.0	941 N1	0.0	0.741	34.9	LOS C	24.9	174.3	0.95	0.84	12.1
All Vehicles		5176	0.0	3505 N1	0.0	1.355	261.5	LOS F	109.6	767.4	0.98	1.59	2.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Forrest Grove													
1	L2	32	0.0	32	0.0	0.053	10.5	LOS A	0.2	1.5	0.60	0.75	23.9
Approach		32	0.0	32	0.0	0.053	10.5	LOS A	0.2	1.5	0.60	0.75	23.9
East: Epping Rd													
4	L2	148	0.0	71	0.0	0.038	5.5	LOS A	0.0	0.0	0.00	0.58	35.7
5	T1	3339	0.0	1602	0.0	0.411	0.0	LOS A	28.0	195.8	0.00	0.00	59.9
Approach		3487	0.0	1673[N1]	0.0	0.411	0.2	NA	28.0	195.8	0.00	0.02	58.1
West: Epping Rd													
11	T1	1331	0.0	911	0.0	0.382	0.0	LOS A	0.0	0.0	0.00	0.00	59.8
Approach		1331	0.0	911[N1]	0.0	0.382	0.0	NA	0.0	0.0	0.00	0.00	59.8
All Vehicles		4849	0.0	2615[N1]	0.0	0.411	0.3	NA	28.0	195.8	0.01	0.02	57.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Eppimg_Pem [EppingRd_PembrokeSt]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

EppingRd_PembrokeSt
Signals - Fixed Time Coordinated Cycle Time = 180 seconds (Network Cycle Time - Program)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Epping Rd													
1	L2	58	0.0	42	0.0	0.311	9.3	LOS A	9.8	68.8	0.25	0.27	47.7
2	T1	1308	0.0	959	0.0	0.311	3.7	LOS A	9.9	69.1	0.25	0.25	54.4
Approach		1366	0.0	1002[N1]	0.0	0.311	4.0	LOS A	9.9	69.1	0.25	0.25	54.2
North: Epping Rd													
8	T1	2903	0.0	2903	0.0	1.799	792.4	LOS F	427.7	2994.1	1.00	2.83	2.2
9	R2	338	0.0	338	0.0	1.002	129.7	LOS F	49.3	344.8	1.00	1.15	15.4
Approach		3241	0.0	3241	0.0	1.799	723.3	LOS F	427.7	2994.1	1.00	2.66	2.5
West: Pembroke St													
10	L2	468	0.0	468	0.0	1.195	273.5	LOS F	38.9	272.1	1.00	1.28	8.1
Approach		468	0.0	468	0.0	1.195	273.5	LOS F	38.9	272.1	1.00	1.28	8.1
All Vehicles		5076	0.0	4711[N1]	0.0	1.799	525.6	LOS F	427.7	2994.1	0.84	2.01	3.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	83.3	LOS F	0.3	0.3	0.96	0.96
P3	North Full Crossing	53	84.3	LOS F	0.3	0.3	0.97	0.97
P4	West Full Crossing	53	4.5	LOS A	0.1	0.1	0.22	0.22
All Pedestrians		158	57.4	LOS E			0.72	0.72

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2017_netwo [Epping_2036_pm_RMS_Council]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Epping Rd													
5	T1	3371	0.0	1634	0.0	0.279	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		3371	0.0	1634 N1	0.0	0.279	0.0	NA	11.7	81.6	0.00	0.00	59.9
North: Smith St													
7	L2	19	0.0	19	0.0	0.022	7.6	LOS A	0.1	0.6	0.45	0.63	37.4
Approach		19	0.0	19	0.0	0.022	7.6	LOS A	0.1	0.6	0.45	0.63	37.4
West: Epping Rd													
10	L2	9	0.0	7	0.0	0.240	5.5	LOS A	0.0	0.0	0.00	0.01	55.9
11	T1	1314	0.0	930	0.0	0.240	0.0	LOS A	0.0	0.0	0.00	0.00	59.8
Approach		1323	0.0	936 N1	0.0	0.240	0.1	NA	0.0	0.0	0.00	0.00	59.7
All Vehicles		4713	0.0	2589 N1	0.0	0.279	0.1	NA	11.7	81.6	0.00	0.01	59.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 140.1 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Appendix M

Austino Site Analysis

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2026 netwk [2026_4000_am_network]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	891	0.0	891	0.0	0.926	76.2	LOS F	28.0	195.8	1.00	1.11	5.8
2	T1	157	0.0	157	0.0	1.709	695.3	LOS F	28.0	195.8	1.00	1.90	1.5
Approach		1047	0.0	1047	0.0	1.709	168.9	LOS F	28.0	195.8	1.00	1.23	3.2
East: Epping Rd													
4	L2	1	0.0	1	0.0	0.001	38.1	LOS C	0.0	0.3	0.66	0.60	15.2
5	T1	1327	0.0	1231	0.0	1.787	773.5	LOS F	46.6	326.4	1.00	2.89	1.0
Approach		1328	0.0	1232 N1	0.0	1.787	773.0	LOS F	46.6	326.4	1.00	2.88	1.0
North: Landston Place													
7	L2	15	0.0	15	0.0	0.060	64.9	LOS E	0.9	6.5	0.89	0.70	8.4
8	T1	455	0.0	455	0.0	1.767	746.8	LOS F	117.3	821.4	1.00	2.59	0.8
Approach		469	0.0	469	0.0	1.767	725.4	LOS F	117.3	821.4	1.00	2.53	0.9
West: Bridge St													
10	L2	760	0.0	331	0.0	0.275	5.6	LOS A	3.1	21.5	0.19	0.60	41.5
11	T1	2608	0.0	1136	0.0	0.647	13.6	LOS A	14.0	97.9	0.57	0.52	15.6
12	R2	1753	0.0	763	0.0	1.817	798.4	LOS F	14.0	97.9	1.00	2.95	0.3
Approach		5121	0.0	2229 N1	0.0	1.817	281.0	LOS F	14.0	97.9	0.66	1.36	1.3
All Vehicles		7966	0.0	4978 N1	0.0	1.817	421.1	LOS F	117.3	821.4	0.85	1.82	1.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.7 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2026 nrtwr [2026_4000_pm]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	1967	0.0	1967	0.0	2.122	1060.2	LOS F	28.0	195.8	1.00	2.25	0.4
2	T1	301	0.0	301	0.0	2.270	1191.6	LOS F	28.0	195.8	1.00	2.50	0.9
Approach		2268	0.0	2268	0.0	2.270	1077.6	LOS F	28.0	195.8	1.00	2.28	0.5
East: Epping Rd													
4	L2	1	0.0	1	0.0	0.001	35.4	LOS C	0.0	0.3	0.63	0.60	16.1
5	T1	2185	0.0	1778	0.0	2.399	1325.2	LOS F	46.6	326.4	1.00	3.56	0.6
Approach		2186	0.0	1779 N1	0.0	2.399	1324.6	LOS F	46.6	326.4	1.00	3.56	0.6
North: Landston Place													
7	L2	7	0.0	7	0.0	0.037	68.6	LOS E	0.5	3.3	0.91	0.67	8.0
8	T1	476	0.0	476	0.0	2.259	1182.4	LOS F	146.3	1023.9	1.00	2.86	0.5
Approach		483	0.0	483	0.0	2.259	1165.4	LOS F	146.3	1023.9	1.00	2.82	0.5
West: Bridge St													
10	L2	421	0.0	328	0.0	0.282	6.2	LOS A	3.9	27.0	0.22	0.61	40.3
11	T1	1004	0.0	783	0.0	0.439	11.3	LOS A	14.0	97.9	0.47	0.42	17.8
12	R2	1143	0.0	891	0.0	2.344	1269.6	LOS F	14.0	97.9	1.00	3.47	0.2
Approach		2568	0.0	2002 N1	0.0	2.344	570.5	LOS F	14.0	97.9	0.67	1.81	0.6
All Vehicles		7506	0.0	6532 N1	0.0	2.399	996.0	LOS F	146.3	1023.9	0.90	2.53	0.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.9 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2026 netwk [2026_4000_am_network]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	21	0.0	21	0.0	0.082	64.3	LOS E	1.3	9.3	0.89	0.71	5.8
2	T1	304	0.0	304	0.0	1.185	247.0	LOS F	45.5	318.8	1.00	1.63	3.3
3	R2	174	0.0	174	0.0	0.678	71.9	LOS F	12.3	86.3	1.00	0.83	10.8
Approach		499	0.0	499	0.0	1.185	178.4	LOS F	45.5	318.8	0.99	1.31	4.5
East: Epping Rd													
4	L2	22	0.0	22	0.0	0.819	44.6	LOS D	28.0	195.9	0.99	0.93	16.9
5	T1	743	0.0	743	0.0	0.819	41.6	LOS C	28.0	195.9	0.98	0.94	12.0
Approach		765	0.0	765	0.0	0.819	41.7	LOS C	28.0	195.9	0.98	0.94	12.2
North: Essex St													
7	L2	6	0.0	6	0.0	0.031	37.4	LOS C	1.0	7.1	0.67	0.55	23.4
8	T1	16	0.0	16	0.0	0.031	31.9	LOS C	1.0	7.1	0.67	0.55	21.8
9	R2	626	0.0	626	0.0	1.223	292.9	LOS F	53.4	374.1	1.00	1.46	2.5
Approach		648	0.0	648	0.0	1.223	284.0	LOS F	53.4	374.1	0.99	1.43	2.6
West: Epping Rd													
10	L2	40	0.0	18	0.0	0.567	30.9	LOS C	14.0	98.2	0.88	0.76	22.3
11	T1	2455	0.0	1080	0.0	1.193	165.3	LOS F	28.0	195.8	0.96	1.41	5.2
Approach		2495	0.0	1097 N1	0.0	1.193	163.2	LOS F	28.0	195.8	0.96	1.40	5.3
All Vehicles		4407	0.0	3010 N1	0.0	1.223	160.9	LOS F	53.4	374.1	0.98	1.28	4.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.7 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2026 nrtwr [2026_4000_pm]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	2	0.0	2	0.0	0.016	74.6	LOS F	0.1	1.0	0.94	0.62	5.1
2	T1	174	0.0	174	0.0	1.243	295.2	LOS F	28.3	198.1	1.00	1.54	2.8
3	R2	141	0.0	141	0.0	1.055	155.4	LOS F	15.8	110.5	1.00	1.16	5.5
Approach		317	0.0	317	0.0	1.243	231.5	LOS F	28.3	198.1	1.00	1.36	3.6
East: Epping Rd													
4	L2	358	0.0	358	0.0	1.250	274.2	LOS F	246.4	1724.9	1.00	1.82	3.2
5	T1	2013	0.0	2013	0.0	1.250	274.7	LOS F	246.4	1724.9	1.00	1.86	2.1
Approach		2371	0.0	2371	0.0	1.250	274.6	LOS F	246.4	1724.9	1.00	1.85	2.2
North: Essex St													
7	L2	20	0.0	20	0.0	1.231	289.5	LOS F	40.7	285.2	1.00	1.64	4.2
8	T1	239	0.0	239	0.0	1.231	284.1	LOS F	40.7	285.2	1.00	1.64	3.6
9	R2	242	0.0	242	0.0	1.231	297.3	LOS F	20.4	142.9	1.00	1.45	2.4
Approach		501	0.0	501	0.0	1.231	290.7	LOS F	40.7	285.2	1.00	1.55	3.0
West: Epping Rd													
10	L2	61	0.0	48	0.0	0.202	11.2	LOS A	3.9	27.4	0.42	0.42	39.4
11	T1	959	0.0	751	0.0	0.426	6.5	LOS A	10.0	70.3	0.49	0.45	43.3
Approach		1020	0.0	798 N1	0.0	0.426	6.8	LOS A	10.0	70.3	0.49	0.44	43.1
All Vehicles		4208	0.0	3987 N1	0.0	1.250	219.6	LOS F	246.4	1724.9	0.90	1.49	3.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.9 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2026 netwk [2026_4000_am_network]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	129	0.0	129	0.0	0.096	7.4	LOS A	0.4	3.1	0.39	0.62	28.5
Approach		129	0.0	129	0.0	0.096	7.4	LOS A	0.4	3.1	0.39	0.62	28.5
East: Epping Rd													
4	L2	194	0.0	178	0.0	0.220	5.5	LOS A	0.0	0.0	0.00	0.25	46.4
5	T1	1197	0.0	1099	0.0	0.220	0.0	LOS A	28.0	195.8	0.00	0.06	56.3
Approach		1391	0.0	1277 N1	0.0	0.220	0.8	NA	28.0	195.8	0.00	0.08	54.7
West: Epping Rd													
11	T1	2494	0.0	1096	0.0	0.281	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		2494	0.0	1096 N1	0.0	0.281	0.0	NA	11.7	81.6	0.00	0.00	59.9
All Vehicles		4014	0.0	2503 N1	0.0	0.281	0.8	NA	28.0	195.8	0.02	0.07	53.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.7 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2026 nrtwr [2026_4000_pm]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	113	0.0	113	0.0	0.107	9.0	LOS A	0.5	3.4	0.51	0.69	26.0
Approach		113	0.0	113	0.0	0.107	9.0	LOS A	0.5	3.4	0.51	0.69	26.0
East: Epping Rd													
4	L2	183	0.0	147	0.0	0.311	5.5	LOS A	0.0	0.0	0.00	0.15	51.3
5	T1	2074	0.0	1665	0.0	0.311	0.0	LOS A	28.0	195.8	0.00	0.04	57.3
Approach		2257	0.0	1812 N1	0.0	0.311	0.5	NA	28.0	195.8	0.00	0.05	56.7
West: Epping Rd													
11	T1	1020	0.0	781	0.0	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1020	0.0	781 N1	0.0	0.200	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		3389	0.0	2706 N1	0.0	0.311	0.7	NA	28.0	195.8	0.02	0.06	54.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.9 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2026 netwk [2026_4000_am_network]

Epping Rd - Smoith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: RoadName													
5	T1	1338	0.0	1241	0.0	0.212	0.0	LOS A	11.7	81.6	0.00	0.00	60.0
Approach		1338	0.0	1241 N1	0.0	0.212	0.0	NA	11.7	81.6	0.00	0.00	60.0
North: RoadName													
7	L2	6	0.0	6	0.0	0.006	8.8	LOS A	0.0	0.2	0.51	0.63	35.4
Approach		6	0.0	6	0.0	0.006	8.8	LOS A	0.0	0.2	0.51	0.63	35.4
West: Epping Rd													
10	L2	121	0.0	53	0.0	0.294	5.6	LOS A	0.0	0.0	0.00	0.06	55.0
11	T1	2487	0.0	1090	0.0	0.294	0.0	LOS A	46.6	326.4	0.00	0.03	58.8
Approach		2608	0.0	1144 N1	0.0	0.294	0.3	NA	46.6	326.4	0.00	0.03	58.5
All Vehicles		3953	0.0	2390 N1	0.0	0.294	0.2	NA	46.6	326.4	0.00	0.01	58.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.7 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2026 nrtwr [2026_4000_pm]

Epping Rd - Smoith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: RoadName													
5	T1	2185	0.0	1777	0.0	0.304	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		2185	0.0	1777[N1]	0.0	0.304	0.0	NA	11.7	81.6	0.00	0.00	59.9
North: RoadName													
7	L2	6	0.0	6	0.0	0.004	7.9	LOS A	0.0	0.1	0.46	0.60	36.8
Approach		6	0.0	6	0.0	0.004	7.9	LOS A	0.0	0.1	0.46	0.60	36.8
West: Epping Rd													
10	L2	8	0.0	6	0.0	0.199	5.5	LOS A	0.0	0.0	0.00	0.01	55.9
11	T1	1003	0.0	771	0.0	0.199	0.0	LOS A	0.0	0.0	0.00	0.00	59.7
Approach		1012	0.0	777[N1]	0.0	0.199	0.1	NA	0.0	0.0	0.00	0.00	59.7
All Vehicles		3203	0.0	2561[N1]	0.0	0.304	0.0	NA	11.7	81.6	0.00	0.00	59.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 48.9 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2026 netwk [2026_4600_am_network]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	891	0.0	891	0.0	0.926	77.1	LOS F	28.0	195.8	1.00	1.11	5.7
2	T1	140	0.0	140	0.0	1.716	701.4	LOS F	28.0	195.8	1.00	1.85	1.4
Approach		1031	0.0	1031	0.0	1.716	161.9	LOS F	28.0	195.8	1.00	1.21	3.2
East: Epping Rd													
4	L2	1	0.0	1	0.0	0.001	38.1	LOS C	0.0	0.3	0.66	0.60	15.2
5	T1	1360	0.0	1262	0.0	1.831	813.2	LOS F	46.6	326.4	1.00	2.94	0.9
Approach		1361	0.0	1263 N1	0.0	1.831	812.6	LOS F	46.6	326.4	1.00	2.94	0.9
North: Landston Place													
7	L2	7	0.0	7	0.0	0.030	64.4	LOS E	0.5	3.2	0.88	0.67	8.4
8	T1	462	0.0	462	0.0	1.795	772.0	LOS F	120.9	846.4	1.00	2.62	0.8
Approach		469	0.0	469	0.0	1.795	760.9	LOS F	120.9	846.4	1.00	2.59	0.8
West: Bridge St													
10	L2	783	0.0	340	0.0	0.280	5.5	LOS A	3.0	20.8	0.18	0.60	41.7
11	T1	2556	0.0	1110	0.0	0.628	12.9	LOS A	14.0	97.9	0.55	0.50	16.2
12	R2	1792	0.0	778	0.0	1.809	791.8	LOS F	14.0	97.9	1.00	2.94	0.3
Approach		5131	0.0	2228 N1	0.0	1.809	283.8	LOS F	14.0	97.9	0.65	1.37	1.3
All Vehicles		7992	0.0	4990 N1	0.0	1.831	437.3	LOS F	120.9	846.4	0.84	1.85	1.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.3 %
Number of Iterations: 28 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Blaxland [Epping_Blaxland]

Network: 2026netwrk [2026_4600_pm_network]

New Site
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Blaxland Rd													
1	L2	1991	0.0	1991	0.0	2.187	1118.7	LOS F	28.0	195.8	1.00	2.29	0.4
2	T1	307	0.0	307	0.0	2.318	1233.9	LOS F	28.0	195.8	1.00	2.52	0.8
Approach		2298	0.0	2298	0.0	2.318	1134.1	LOS F	28.0	195.8	1.00	2.32	0.5
East: Epping Rd													
4	L2	1	0.0	1	0.0	0.001	35.4	LOS C	0.0	0.3	0.63	0.60	16.1
5	T1	2185	0.0	1768	0.0	2.386	1313.2	LOS F	46.6	326.4	1.00	3.55	0.6
Approach		2186	0.0	1769 N1	0.0	2.386	1312.6	LOS F	46.6	326.4	1.00	3.55	0.6
North: Landston Place													
7	L2	7	0.0	7	0.0	0.035	67.5	LOS E	0.5	3.3	0.90	0.67	8.1
8	T1	483	0.0	483	0.0	2.173	1106.4	LOS F	145.2	1016.1	1.00	2.84	0.6
Approach		491	0.0	491	0.0	2.173	1090.8	LOS F	145.2	1016.1	1.00	2.81	0.6
West: Bridge St													
10	L2	419	0.0	312	0.0	0.268	6.2	LOS A	3.6	25.4	0.22	0.61	40.4
11	T1	1006	0.0	750	0.0	0.422	11.6	LOS A	14.0	97.9	0.48	0.42	17.5
12	R2	1167	0.0	871	0.0	2.353	1277.1	LOS F	14.0	97.9	1.00	3.48	0.2
Approach		2593	0.0	1933 N1	0.0	2.353	580.5	LOS F	14.0	97.9	0.67	1.83	0.6
All Vehicles		7567	0.0	6491 N1	0.0	2.386	1014.6	LOS F	145.2	1016.1	0.90	2.54	0.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 12.4 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2026 netwk [2026_4600_am_network]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	21	0.0	21	0.0	0.070	60.3	LOS E	1.3	8.9	0.86	0.71	6.2
2	T1	377	0.0	377	0.0	1.243	294.1	LOS F	62.2	435.3	1.00	1.82	2.8
3	R2	201	0.0	201	0.0	0.668	68.2	LOS E	13.9	97.5	0.99	0.83	11.3
Approach		599	0.0	599	0.0	1.243	210.0	LOS F	62.2	435.3	0.99	1.45	3.9
East: Epping Rd													
4	L2	22	0.0	22	0.0	0.881	56.8	LOS E	33.0	230.9	1.00	1.02	14.0
5	T1	749	0.0	749	0.0	0.881	54.9	LOS D	33.0	230.9	1.00	1.03	9.6
Approach		772	0.0	772	0.0	0.881	54.9	LOS D	33.0	230.9	1.00	1.03	9.7
North: Essex St													
7	L2	4	0.0	4	0.0	0.029	38.0	LOS C	0.9	6.4	0.67	0.53	23.3
8	T1	16	0.0	16	0.0	0.029	32.5	LOS C	0.9	6.4	0.67	0.53	21.7
9	R2	623	0.0	623	0.0	1.232	300.1	LOS F	53.8	376.3	1.00	1.47	2.4
Approach		643	0.0	643	0.0	1.232	291.8	LOS F	53.8	376.3	0.99	1.44	2.5
West: Epping Rd													
10	L2	39	0.0	17	0.0	0.586	35.2	LOS C	14.6	102.2	0.90	0.79	20.3
11	T1	2394	0.0	1047	0.0	1.235	190.8	LOS F	28.0	195.8	0.97	1.48	4.6
Approach		2433	0.0	1064 N1	0.0	1.235	188.3	LOS F	28.0	195.8	0.97	1.47	4.7
All Vehicles		4446	0.0	3078 N1	0.0	1.243	180.7	LOS F	62.2	435.3	0.99	1.35	4.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.3 %
Number of Iterations: 28 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Essex St [Essex St]

Network: 2026netwrk [2026_4600_pm_network]

Epping Essex St
Signals - Fixed Time Isolated Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Essex St													
1	L2	2	0.0	2	0.0	0.016	74.6	LOS F	0.1	1.0	0.94	0.62	5.1
2	T1	172	0.0	172	0.0	1.228	282.8	LOS F	27.3	191.2	1.00	1.51	2.9
3	R2	151	0.0	151	0.0	1.126	206.6	LOS F	19.8	138.9	1.00	1.26	4.2
Approach		324	0.0	324	0.0	1.228	246.1	LOS F	27.3	191.2	1.00	1.39	3.4
East: Epping Rd													
4	L2	374	0.0	374	0.0	1.261	284.4	LOS F	253.1	1771.7	1.00	1.85	3.1
5	T1	2018	0.0	2018	0.0	1.261	284.9	LOS F	253.1	1771.7	1.00	1.89	2.0
Approach		2392	0.0	2392	0.0	1.261	284.8	LOS F	253.1	1771.7	1.00	1.88	2.2
North: Essex St													
7	L2	20	0.0	20	0.0	1.240	296.6	LOS F	41.6	291.1	1.00	1.66	4.1
8	T1	237	0.0	237	0.0	1.240	291.1	LOS F	41.6	291.1	1.00	1.66	3.5
9	R2	249	0.0	249	0.0	1.259	320.6	LOS F	21.4	149.8	1.00	1.48	2.2
Approach		506	0.0	506	0.0	1.259	305.8	LOS F	41.6	291.1	1.00	1.57	2.9
West: Epping Rd													
10	L2	62	0.0	47	0.0	0.195	11.2	LOS A	3.7	26.2	0.42	0.42	39.5
11	T1	959	0.0	721	0.0	0.410	6.5	LOS A	9.5	66.6	0.48	0.44	43.4
Approach		1021	0.0	768 N1	0.0	0.410	6.7	LOS A	9.5	66.6	0.48	0.44	43.2
All Vehicles		4243	0.0	3990 N1	0.0	1.261	230.8	LOS F	253.1	1771.7	0.90	1.52	3.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 12.4 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2026 netwk [2026_4600_am_network]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	167	0.0	167	0.0	0.123	7.5	LOS A	0.6	4.1	0.39	0.63	28.4
Approach		167	0.0	167	0.0	0.123	7.5	LOS A	0.6	4.1	0.39	0.63	28.4
East: Epping Rd													
4	L2	201	0.0	184	0.0	0.220	5.5	LOS A	0.0	0.0	0.00	0.26	46.1
5	T1	1193	0.0	1093	0.0	0.220	0.0	LOS A	28.0	195.8	0.00	0.06	56.3
Approach		1394	0.0	1278 N1	0.0	0.220	0.8	NA	28.0	195.8	0.00	0.09	54.5
West: Epping Rd													
11	T1	2433	0.0	1064	0.0	0.273	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		2433	0.0	1064 N1	0.0	0.273	0.0	NA	11.7	81.6	0.00	0.00	59.9
All Vehicles		3994	0.0	2510 N1	0.0	0.273	0.9	NA	28.0	195.8	0.03	0.09	52.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.3 %
Number of Iterations: 28 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Forrest Gr [Forrest Grove]

Network: 2026netwrk [2026_4600_pm_network]

Epping Rd Forrest Grove
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Forrest Grove													
1	L2	147	0.0	147	0.0	0.135	8.8	LOS A	0.6	4.4	0.50	0.68	26.4
Approach		147	0.0	147	0.0	0.135	8.8	LOS A	0.6	4.4	0.50	0.68	26.4
East: Epping Rd													
4	L2	232	0.0	184	0.0	0.310	5.5	LOS A	0.0	0.0	0.00	0.18	49.4
5	T1	2038	0.0	1619	0.0	0.310	0.0	LOS A	28.0	195.8	0.00	0.05	56.8
Approach		2269	0.0	1803 N1	0.0	0.310	0.6	NA	28.0	195.8	0.00	0.06	56.0
West: Epping Rd													
11	T1	1021	0.0	778	0.0	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1021	0.0	778 N1	0.0	0.200	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		3438	0.0	2729 N1	0.0	0.310	0.9	NA	28.0	195.8	0.03	0.08	53.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 12.4 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2026 netwk [2026_4600_am_network]

Epping Rd - Smith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Epping Rd													
5	T1	1360	0.0	1261	0.0	0.216	0.0	LOS A	11.7	81.6	0.00	0.00	60.0
Approach		1360	0.0	1261[N1]	0.0	0.216	0.0	NA	11.7	81.6	0.00	0.00	60.0
North: Smith St													
7	L2	8	0.0	8	0.0	0.008	8.6	LOS A	0.0	0.2	0.51	0.64	35.6
Approach		8	0.0	8	0.0	0.008	8.6	LOS A	0.0	0.2	0.51	0.64	35.6
West: Epping Rd													
10	L2	132	0.0	57	0.0	0.286	5.6	LOS A	0.0	0.0	0.00	0.06	54.9
11	T1	2424	0.0	1056	0.0	0.286	0.0	LOS A	46.6	326.4	0.00	0.03	58.7
Approach		2556	0.0	1114[N1]	0.0	0.286	0.3	NA	46.6	326.4	0.00	0.03	58.3
All Vehicles		3924	0.0	2383[N1]	0.0	0.286	0.2	NA	46.6	326.4	0.00	0.02	58.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.3 %
Number of Iterations: 28 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

MOVEMENT SUMMARY

Site: Smith St [Smith St]

Network: 2026netwrk [2026_4600_pm_network]

Epping Rd - Smoith St

Giveway / Yield (Two-Way)

Movement Performance - Vehicles

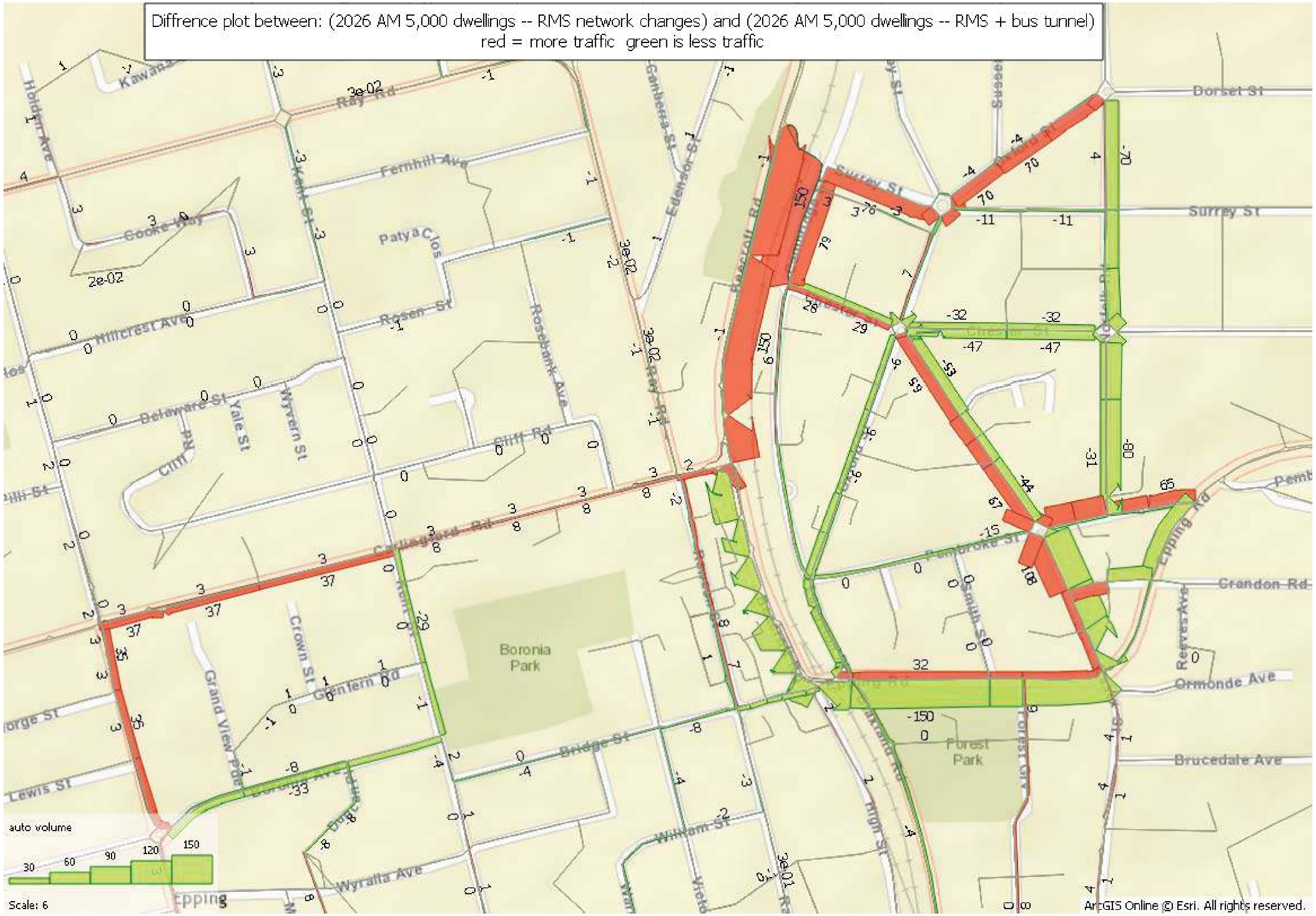
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: RoadName													
5	T1	2185	0.0	1767	0.0	0.302	0.0	LOS A	11.7	81.6	0.00	0.00	59.9
Approach		2185	0.0	1767[N1]	0.0	0.302	0.0	NA	11.7	81.6	0.00	0.00	59.9
North: RoadName													
7	L2	17	0.0	17	0.0	0.011	7.9	LOS A	0.0	0.3	0.45	0.62	36.9
Approach		17	0.0	17	0.0	0.011	7.9	LOS A	0.0	0.3	0.45	0.62	36.9
West: Epping Rd													
10	L2	8	0.0	6	0.0	0.195	5.5	LOS A	0.0	0.0	0.00	0.01	55.9
11	T1	1004	0.0	753	0.0	0.195	0.0	LOS A	0.0	0.0	0.00	0.00	59.8
Approach		1013	0.0	759[N1]	0.0	0.195	0.1	NA	0.0	0.0	0.00	0.00	59.7
All Vehicles		3215	0.0	2543[N1]	0.0	0.302	0.1	NA	11.7	81.6	0.00	0.01	59.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 12.4 %
Number of Iterations: 30 (maximum specified: 30)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Appendix N

Bus Tunnel Analysis


Diffrence plot between: (2026 AM 5,000 dwellings -- RMS network changes) and (2026 AM 5,000 dwellings -- RMS + bus tunnel)
red = more traffic green is less traffic
Dorset St
Surrey St
Boronia Park
Forest Park
Grand View Pde
Crown St
Wyralla Ave
Bridge St
Brucedale Ave
Ormonde Ave
Crandon Rd
Fernhill Ave
Rosebank Ave
Delaware St
Yale St
Wyvern St
Hillcrest Ave
Holden Ave
auto volume
30
60
90
120
150
Scale: 6
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Diffrence plot between: (2026 PM 5,000 dwellings -- RMS network changes) and (2026 PM 5,000 dwellings -- RMS + bus tunnel)
red = more traffic green is less traffic


Dorset St
Surrey St
Ray Rd
Fernhill Ave
Cooke Way
Patya Clos
Rosen St
Hillcrest Ave
Rosebank Ave
Delaware St
Yale St
Wyvern St
Cliff Rd
Kent St
Carlingford Rd
Crown St
Glenfern Rd
Grand View Pde
Boronia Ave
Bridge St
William St
Wyralla Ave
Boronia Park
Forest Park
Forest Grv
Brucedale Ave
Ormonde Ave
Reeves Ave
Crandon Rd
Epping Rd
Pembroke St
Smith St
High St
Beecroft Rd
Canberra St
Edensor St
Holden Ave
Lewis St
auto volume
20
40
60
80
100
Scale: 5
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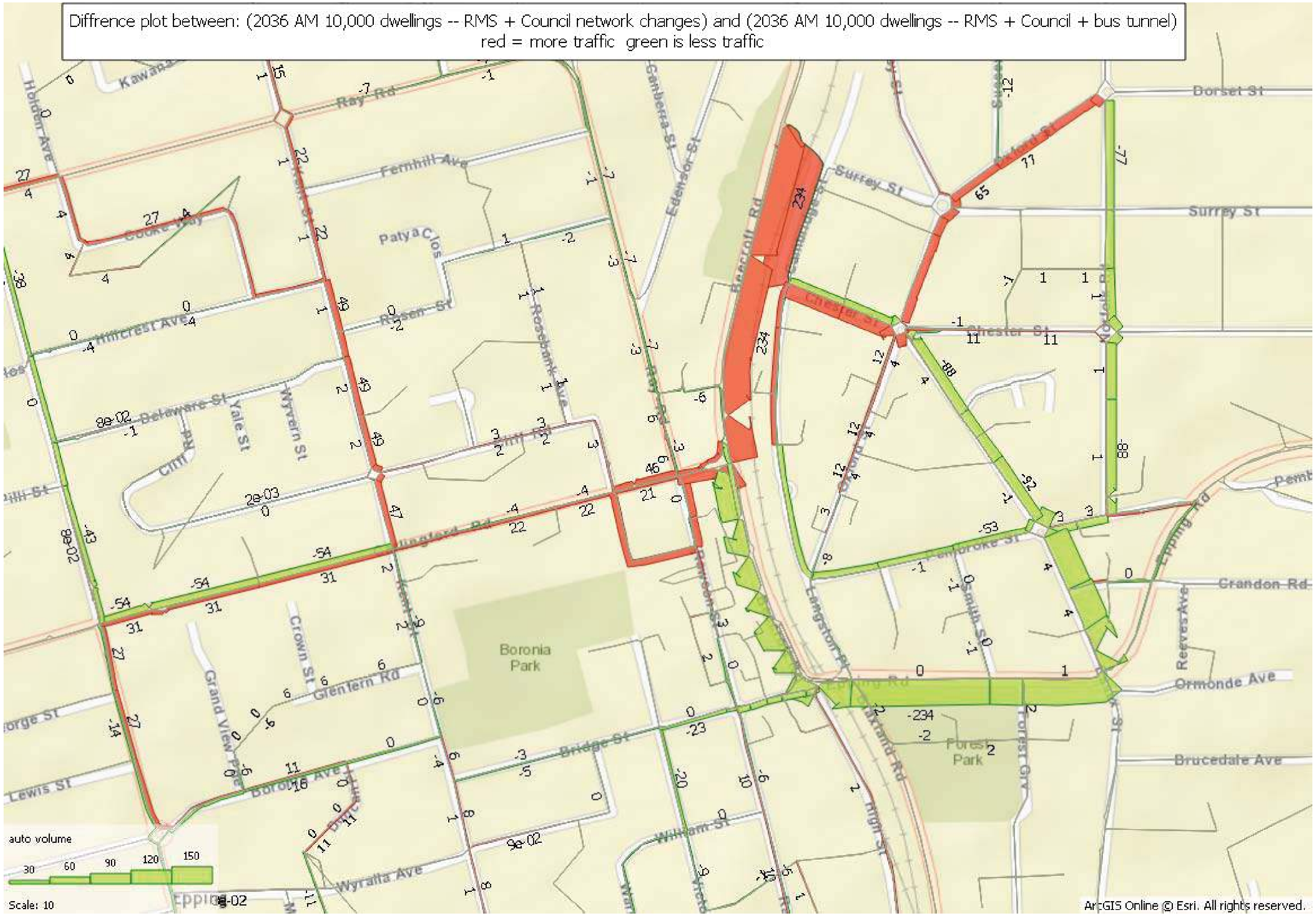
Diffrence plot between: (2036 AM 10,000 dwellings -- RMS + Council network changes) and (2036 AM 10,000 dwellings -- RMS + Council + bus tunnel)
red = more traffic green is less traffic
auto volume
30
60
90
120
150
Scale: 10
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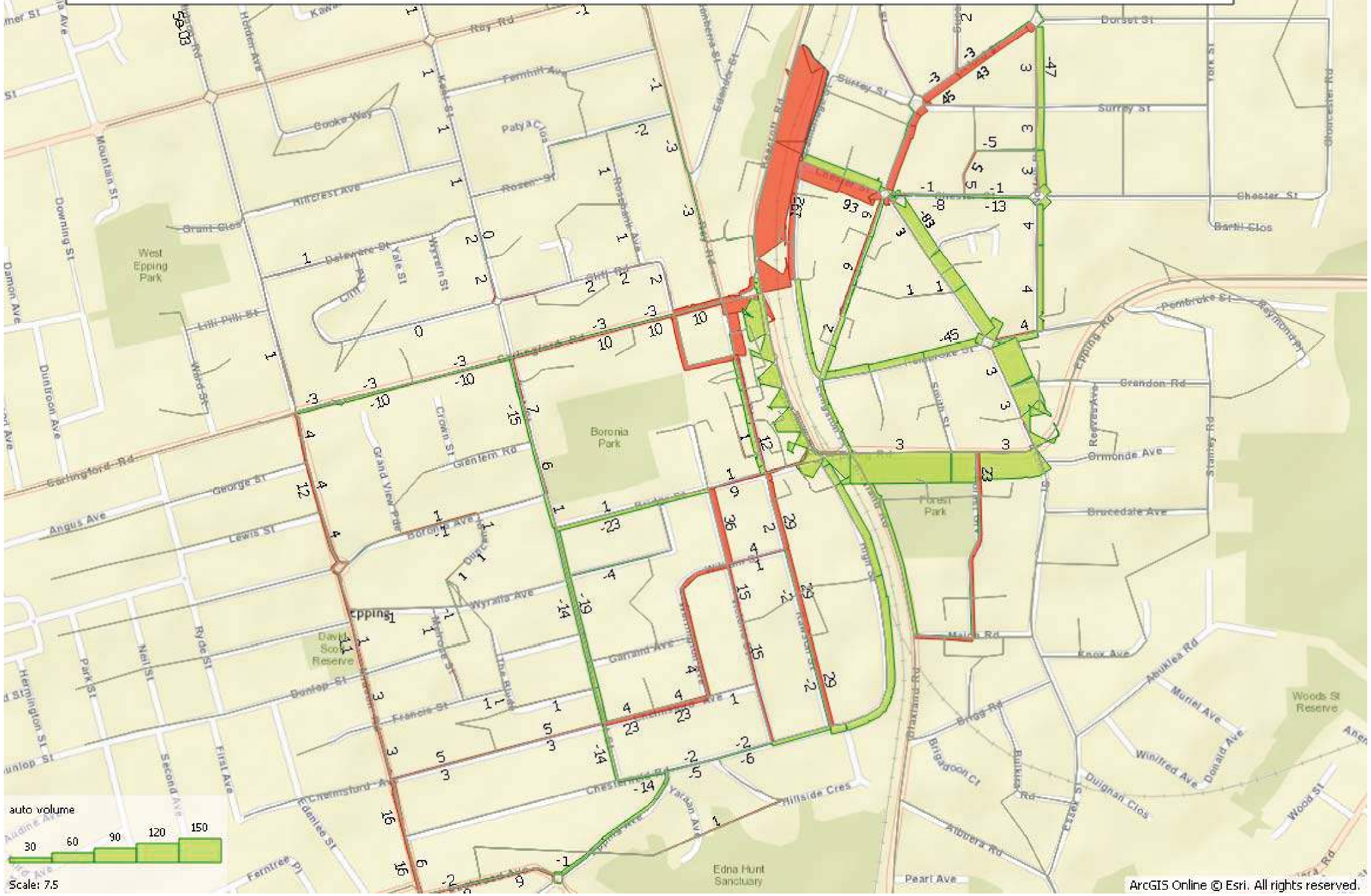
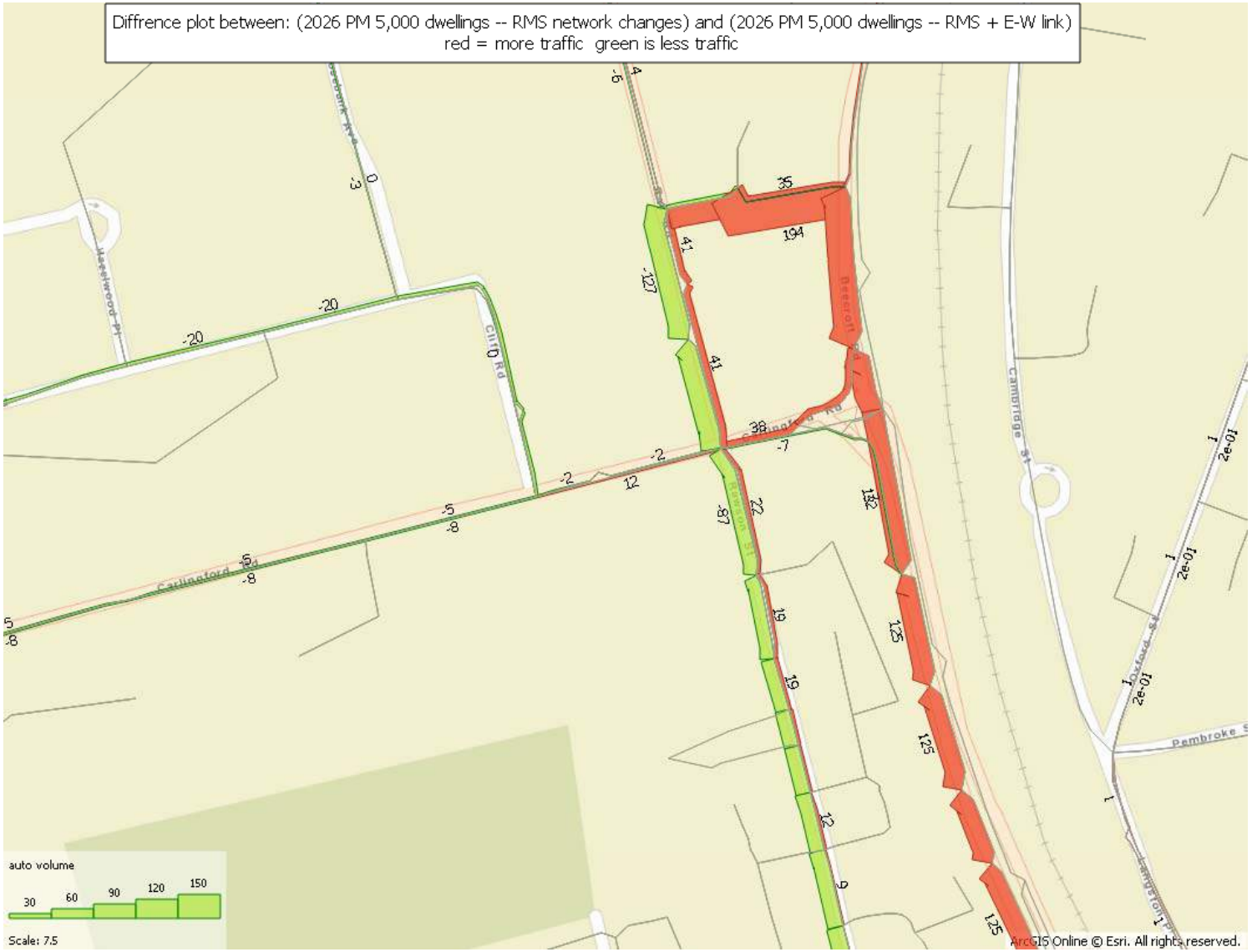
Diffrence plot between: (2036 PM 10,000 dwellings -- RMS + Council network changes) and (2036 PM 10,000 dwellings -- RMS + Council + bus tunnel)
red = more traffic green is less traffic



Appendix O

East West Link Analysis

Diffrence plot between: (2026 AM 5,000 dwellings -- RMS network changes) and (2026 AM 5,000 dwellings -- RMS + E-W link)
red = more traffic green is less traffic


Diffrence plot between: (2026 PM 5,000 dwellings -- RMS network changes) and (2026 PM 5,000 dwellings -- RMS + E-W link)
red = more traffic green is less traffic
auto volume
30
60
90
120
150
Scale: 7.5
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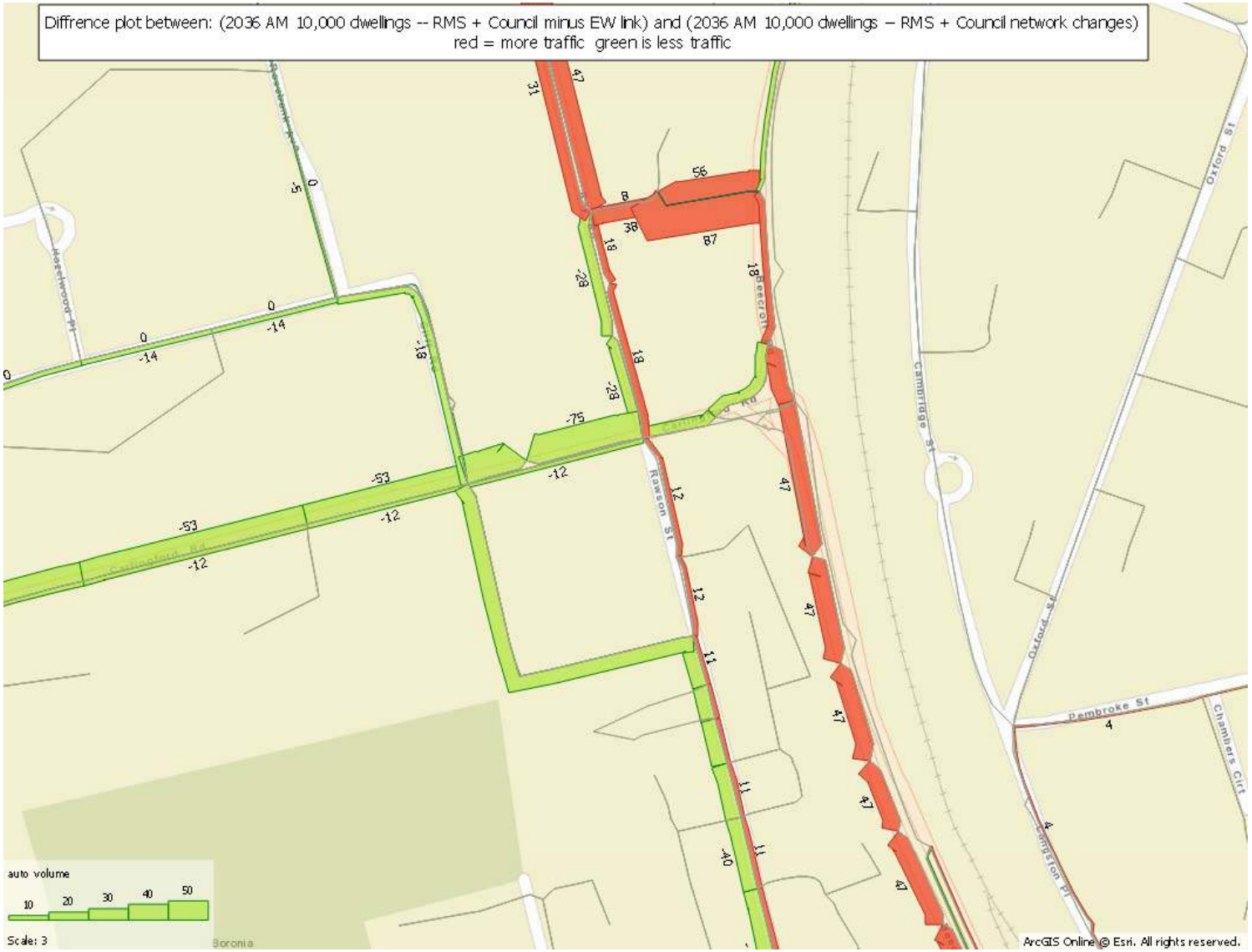
Diffrence plot between: (2036 AM 10,000 dwellings -- RMS + Council minus EW link) and (2036 AM 10,000 dwellings – RMS + Council network changes)
red = more traffic green is less traffic
auto volume
10
20
30
40
50
Scale: 3
Boronia
Oxford St
Cambridge St
Rawson St
Pembroke St
Chambers Cirt
Hazelwood Pl
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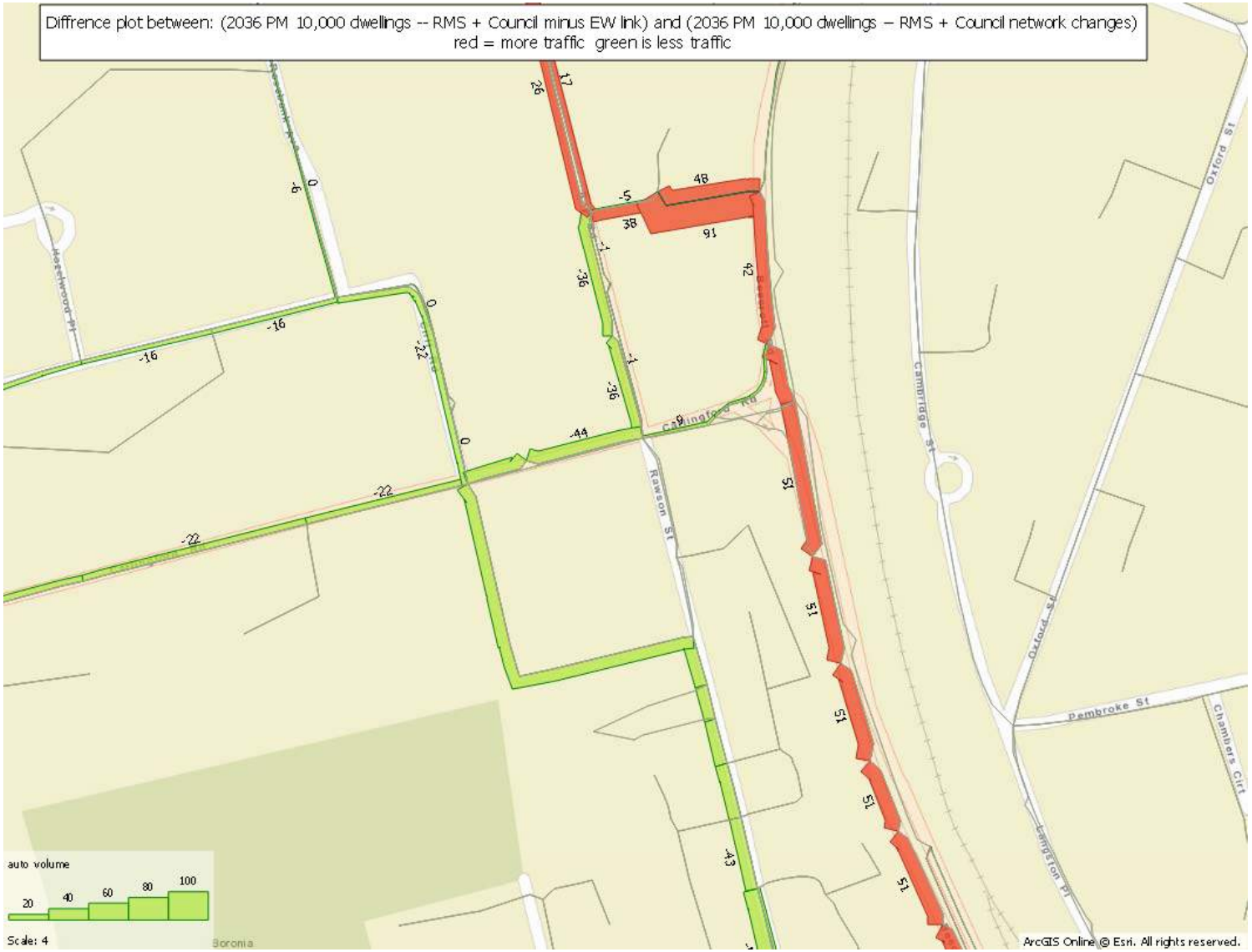
Diffrence plot between: (2036 PM 10,000 dwellings -- RMS + Council minus EW link) and (2036 PM 10,000 dwellings – RMS + Council network changes)
red = more traffic green is less traffic
auto volume
20
40
60
80
100
Scale: 4
Boronia
Rawson St
Cambridge St
Oxford St
Pembroke St
Chambers Cirt
Hazelwood Pl
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